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Cal Groen, Director

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Progress Report



**WATERFOWL FALL AND WINTER SURVEYS, PRODUCTION,
SUMMER BANDING, AND HARVEST**

Study II, Jobs 2 and 3
October 1, 2009 to September 30, 2010

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PROGRESS REPORT SURVEYS AND INVENTORIES

STATE:	<u>Idaho</u>	JOB TITLE:	<u>Waterfowl Fall and Winter</u>
PROJECT:	<u>W-170-R-34</u>		<u>Surveys, Banding, and Harvest</u>
SUBPROJECT:	<u>1-7</u>	STUDY NAME:	<u>Upland Game and Waterfowl</u>
STUDY:	<u>II</u>		<u>Population Status and Trends</u>
JOB:	<u>3</u>		
PERIOD COVERED:	<u>October 1, 2009 to March 31, 2010</u>		

JOB 3. WATERFOWL FALL AND WINTER SURVEYS, BANDING, AND HARVEST

ABSTRACT

The results of the midwinter waterfowl survey, conducted by regional personnel, and the results of harvest surveys are summarized and discussed. The midwinter waterfowl survey was conducted in January 2010. The 2010 count for total ducks and total waterfowl was down 16% and 11%, respectively, from the 2009 count, and down 3% and 8%, respectively, from the 10-year average (2000-2009). The U.S. Fish & Wildlife Service (USFWS) estimated that duck harvest was up 11% and goose harvest was down 10% from 2008-2009 levels. The Department conducted a separate waterfowl harvest survey for the 2009-2010 season. The estimated harvest for ducks and geese, was higher (22% and 36%, respectively) than the USFWS harvest estimates. Idaho held its first-ever spring light goose hunt from February 20 to March 10, 2010 in the Southwest and Magic Valley regions, and a portion of the Southeast Region.

YOUTH WATERFOWL HUNT

For the tenth year, the USFWS offered all states the option of holding a two-day youth waterfowl hunt during the 2009-2010 season. Pacific Flyway states that chose the option were required to reduce their regular seasons by two days so as not to exceed the 107-day maximum length for migratory bird seasons. States were permitted to hold the hunt outside the regular season framework, but regular-season limits applied. The Commission selected the option and chose September 26-27 for the hunt that was open to youth 12-15 years-of-age; it also chose full duck (including merganser), coot, and goose limits.

STUDY OBJECTIVES

1. Determine production and trends of resident waterfowl.
2. Estimate waterfowl harvest, hunter participation, and hunter opinions.
3. Determine waterfowl movements, distribution, and survival rates.

PROCEDURES

1. Conduct fall and winter aerial counts of waterfowl.
2. Evaluate the usefulness of fall surveys and consider new techniques to assess waterfowl numbers.
3. Conduct a telephone survey of hunting license buyers.
4. Operate check stations or field checks.
5. Band waterfowl and monitor movements and survival rates.

Harvest data were collected and analyzed by the Bureau of Wildlife. Personnel stationed in the state's seven regions and one sub-region collected all other data.

RESULTS

DUCKS (ALL SPECIES)

Current Management Plan Goals

1. Reverse the decline in the number of duck hunters.
2. Reverse the decline in duck harvest.
3. Determine duck nesting success at least twice (every other year) on all Wildlife Management Areas (WMAs) where waterfowl production is a priority.
4. Maintain a 30% nest success for upland nesting ducks on WMAs where waterfowl production is a priority.
5. Develop and implement a predator management strategy for priority WMAs where nest success is less than 30%.
6. Establish duck production surveys in at least one region in cooperation with the USFWS.

Management Areas

Background and Management Philosophy: See the 2007 Waterfowl Annual Reports (Study II, Jobs 2 & 3) for a thorough history of the duck management areas in Idaho.

For the 2009-2010 season, the USFWS offered a 107-day season for ducks, snipe, and coot statewide. The regular season was 105 days with no split, and the two-day youth waterfowl season was held September 26-27.

The description, season framework, and bag and possession limits for each Management Area are found in Appendix A.

Population Surveys

The midwinter waterfowl survey was conducted in January 2010 (Table 1). The USFWS predicted a 2009 traditional area mallard breeding population of 8.5 million birds, which was a 10% increase from the 7.7 million bird estimate from 2008 (USFWS 2009).

Harvest Characteristics

Telephone Survey: The Department estimated 350,700 ducks were harvested during the 2009-2010 hunting season (Table 2), which was a 7% decrease from the 2008-2009 estimate. The Department estimate was 22% above the USFWS estimate.

Federal Migratory Game Bird Harvest Information Program: The goal of the program is to obtain improved harvest estimates for all species. By federal mandate, states provide the USFWS with names and addresses of all migratory game bird hunters, from which the USFWS draws samples of hunters to survey. The Department has complied fully with the USFWS's request for information every year since the 1997-1998 season. The USFWS estimated 286,600 ducks were harvested in Idaho during the 2009-2010 hunting season, which was up 11.2% from the 2008-2009 estimate (Table 3).

Waterfowl check stations were operated at the Boundary Creek, McArthur Lake, Pend Oreille, and Coeur d'Alene River WMAs on the opening Saturday and Sunday of the 2009-2010 duck season. A total of 167 hunters expended 776 hours of effort to harvest 383 ducks (2.29 ducks/hunter; 2.03 hours/duck).

Management Implications

The Department continued to meet its 1991-1995 Waterfowl Management Plan (WMP) goals to reverse the decline in the number of duck hunters and ducks harvested. According to USFWS HIP estimates, the average number of adult duck hunters in Idaho was 16,800 from 2001-2009. The Department estimate from 2002-2009 was 20,600 hunters.

See the 2007 Waterfowl Annual Reports (Study II, Jobs 2 & 3) for a thorough history of the Idaho migratory waterfowl stamp and how the revenue it generated was spent. Currently, there is an annual budget of \$155,700 in the Habitat Improvement Program (HIP) for waterfowl habitat improvement or enhancement.

Future management will be directed toward improving and restoring wetland habitat to attract more ducks and other wetland birds as they migrate through Idaho. Habitat improvement will seek to increase local production and improve wetland functions across the landscape.

GEESE (ALL SPECIES)

Current Management Plan Goals

1. Increase Idaho's breeding Canada goose populations and wintering populations.
2. Increase the annual goose harvest to 50,000 birds.
3. Maintain the average number of geese harvested per hunter per season above 3.0.
4. Increase hunter days to 130,000 annually.

Management Areas

Background and Management Philosophy: Two populations of western Canada geese are recognized for management purposes, in the Pacific Flyway (Subcommittee on Rocky Mountain Canada Geese 2000). They include the Rocky Mountain Population (RMP) and the Pacific Population (PP). Both populations occur in Idaho (Figure 1). See the 2007 Waterfowl Annual Reports (Study II, Jobs 2 & 3) for a thorough history of the goose management areas in Idaho.

For the 2009-2010 season, the USFWS offered a 107-day season for geese statewide. The regular season for dark geese was 105 days with no split, and the two-day youth waterfowl season was held September 26-27. The duck and dark goose seasons have opened concurrently since the 2003-2004 waterfowl season.

During the 2008-2009 regulations cycle, the Pacific Flyway Council extended the white goose framework for Interior states to March 10. Idaho implemented its first-ever spring light goose season from February 20 to March 10, 2010. The regular season for light geese was 105 days with no split in the Panhandle, Clearwater, Upper Snake, and Salmon regions, and most of the Southeast Region. The remainder of the state had a season for light geese that was 105 days with a split to allow for hunting in late February and early March.

The description, season framework, and bag and possession limits for each Management Area are found in Appendix A.

Population Surveys

The midwinter waterfowl survey was conducted in January 2010 (Table 1). The number of Canada geese observed was 23% higher than in 2009, and 10 % higher than the previous 10-year average.

Harvest Characteristics

Telephone Survey: The Department used a mail-in/telephone survey to estimate goose harvest (Tables 4-6) for the 2009-2010 season. The harvest estimate was 79,400 (Table 6), 14.0% below the estimate of 92,300 for 2008-2009. The Department also used a mail-in/telephone survey to

estimate the light goose harvest from the spring season. The survey estimated that 871 hunters harvested 1,925 light geese during the February 20 to March 10 season.

Federal Migratory Game Bird Harvest Information Program: The goal of the program is to obtain improved harvest estimates for all species. By federal mandate, states provide the USFWS with names and addresses of all migratory game bird hunters, from which the USFWS draws samples of hunters to survey. The Department has complied fully with the USFWS's request for information every year since the 1997-1998 season. The USFWS estimated 58,300 geese were harvested in Idaho during the 2009-2010 hunting season, which was down 9.6% from the 2008-2009 estimate (Table 3).

Management Implications

The Department continued to meet its 1991-1995 WMP goals for total harvest and harvest per hunter per season; however, the total days hunted statewide were below the WMP goal.

The Department will continue to implement the HIP program (discussed previously in the duck section) to improve wetland habitat for Canada geese and other wetland birds. Goose depredation problems are becoming significant in some urban areas and will require new strategies to manage these nuisance birds.

SANDHILL CRANE

The Department's goals and objectives for the sandhill crane are the same as those for the Pacific Flyway (Subcommittee on Rocky Mountain Greater Sandhill Cranes 2007).

The RMP sandhill crane populations continued to receive increased management emphasis during the reporting period in the Magic Valley, Southeast, and Upper Snake regions because of continued landowner concerns over crop damage. Surveys of RMP greater sandhill cranes in these three regions were initiated in 1995 to document total sandhill crane numbers, arrival dates, distribution, and age ratios.

TRUMPETER SWAN

In 2003, the Department wrote a study plan for a three-year project to evaluate the effectiveness of cygnet translocation to expand the winter distribution of trumpeter swans. The project included a graduate student project at the University of Idaho. Efforts to monitor neck-collared birds continued through the reporting period to evaluate the success of this effort.

The Department continues to monitor swan movements and distribution across Idaho. An implementation plan for the 1998 Pacific Flyway Trumpeter Swan Management Plan was completed in July 2002. Annual progress reports on this plan are available at the Pacific flyway website at www.pacificflyway.org.

Additionally, the Department monitored swan abundance and distribution around the American Falls Reservoir before, during and after the 2010 spring light goose hunt. The majority of the

swan observations, both trumpeter and tundra, were in areas closed to hunting. No incidents of accidental take or poaching of swans were observed or reported during the hunting season.

TUNDRA SWAN

The Department's 1991-1995 WMP goals for tundra swan are to (1) maintain current migrations through Idaho and (2) meet the demand for non-consumptive use. However, during the reporting period, this species received little management emphasis in Idaho. This is because the tundra swan is not classified by the state as a game bird and the species benefits indirectly from other wildlife management programs.

AMERICAN COOT

The Department's 1991-1995 WMP goals for American coot are to (1) maintain Idaho's population, (2) increase the harvest, and (3) provide maximum recreational opportunity. However, this species received little management emphasis during the reporting period. This is because the American coot is not a popular game bird in Idaho and because it benefits indirectly from other wildlife management programs.

WILSON'S SNIPE

The Department's 1991-1995 WMP goals for Wilson's snipe are to (1) maintain Idaho's Wilson's snipe population and (2) maintain the harvest. However, during the reporting period, this species received little management attention. This is because the Wilson's snipe is not a popular game bird in Idaho and because it benefits indirectly from other wildlife management programs.

PROGRESS REPORT SURVEYS AND INVENTORIES

STATE:	<u>Idaho</u>	JOB TITLE:	<u>Waterfowl Production and</u>
PROJECT:	<u>W-170-R-34</u>		<u>Summer Banding</u>
SUBPROJECT:	<u>1-7</u>	STUDY NAME:	<u>Upland Game and Waterfowl</u>
STUDY:	<u>II</u>		<u>Population Status and Trends</u>
JOB:	<u>2</u>		
PERIOD COVERED:	<u>April 1, 2010 to September 30, 2010</u>		

JOB 2. WATERFOWL PRODUCTION AND SUMMER BANDING

ABSTRACT

In 2010, Idaho banded 1,840 mallards. Since 1991, 25,497 mallards have been banded by Department personnel in Idaho. Active nests of Pacific Population (PP) Canada geese counted on four survey areas in north Idaho totaled 364 in 2010. Of 12 PP Canada goose flocks monitored in 2010, five met the Department's 1991-1995 Waterfowl Management Plan (WMP) active nest or indicated breeding pair objectives based on three-year averages (2008-2010). Of nine Rocky Mountain Population (RMP) Canada geese flocks counted with objectives, only one is meeting or exceeding the indicated breeding pair objectives based on three-year averages (2008-2010).

After several years of transplanting geese in response to property damage/depredation complaints in the Southwest Region, none were moved from 2005-2010. No early September Canada goose hunts were held in 2010. In the Upper Snake Region, license dollars were utilized to oil Canada goose nests located on islands in Gem Lake under a permit from the U.S. Fish and Wildlife Service (USFWS).

The combination fixed-wing and ground count of sandhill crane in September was completed in 2010. A total of 5,776 cranes were counted in Idaho. In 2010, sandhill crane tags were again available on a first-come first-served basis. The hunts were held in September in five areas and an estimated 253 cranes were harvested.

Tundra swans, American coots, and Wilson's snipe received little management emphasis; these species benefit from statewide programs aimed at other species. Department management area descriptions: duck, goose, and sandhill crane hunting season structures, and bag and possession limits for the previous season are provided in Appendix A.

STUDY OBJECTIVES

1. Determine production and trends of resident waterfowl.
2. Determine movements, distribution, and survival rates of resident waterfowl.

PROCEDURES

1. Conduct Canada goose breeding pair aerial surveys and nest searches for specific survey areas and implement a triggering mechanism for determining when to reduce the goose harvest.
2. Band locally-produced waterfowl and monitor movements and survival rates.
3. Trap Canada goose goslings and transplant them into areas where new flocks may be started or to supplement existing low populations.

DUCKS (ALL SPECIES)

Regional Reports

Panhandle Region

Population Surveys: Approximately 1,000 wood duck nest boxes located in the Panhandle were available for nesting in 2010. A total of 183 boxes were evaluated. Cavity-nesting ducks (wood ducks, common goldeneye, bufflehead, and hooded mergansers) utilized 107 (58%) of the boxes evaluated.

Breeding pair/brood duck production surveys were conducted on the Boundary Creek, Coeur d'Alene River, McArthur Lake, and Pend Oreille in 2010. Two breeding pair surveys were conducted in May, followed by brood counts conducted in June (once), July (once), and August (once). A total of 467 breeding duck pairs produced 124 observed broods (27% success) and 575 ducklings (4.6 ducklings per brood). While a wide variety of duck species were recorded during the pair counts, many of these species leave prior to breeding and consequently artificially lower the referenced success rates. The dominant breeding duck species in the Panhandle are mallards, wood ducks, and to a lesser extent, blue-winged and green-winged teal.

Trapping and Transplanting: A total of 1,247 ducks were trapped and banded by Department personnel in the Panhandle Region during summer 2010 (Tables 7 and 8). Mallards comprised 72.5% of the sample. Banding occurred at the Coeur d'Alene River, Pend Oreille, McArthur Lake, and Boundary Creek WMAs. No transplanting projects were conducted.

Management Studies: Since 1991, a total of 20,380 locally-produced ducks have been banded during breeding season at the Boundary Creek, McArthur Lake, Pend Oreille, and Coeur d'Alene River WMAs.

Waterfowl check stations were operated at the Boundary Creek, McArthur Lake, Pend Oreille, and Coeur d'Alene River WMAs on the opening Saturday and Sunday of the 2010 duck season. A total of 171 hunters expended 491 hours of effort to harvest 337 ducks (1.97 ducks/hunter; 1.46 hours/duck).

Panhandle staff assisted with a statewide avian influenza sampling effort. Oral and cloacal swabs were collected from trapped and hunter-harvested ducks as part of a coordinated statewide sampling effort in 2010.

Management Implications: The installation of nest boxes in appropriate wetland habitat throughout the Panhandle Region has significantly increased production of cavity-nesting ducks. Although wood ducks are the target species for this effort; common goldeneye and hooded mergansers also frequently use these boxes. Through the Habitat Improvement Program (HIP), many of these nest boxes are now placed on private lands and contribute to the overall improvement in duck production throughout the region.

Clearwater Region

Population Surveys: The number of ducks present in the Clearwater Region is so small that little active management is possible. No population surveys for ducks are conducted within the region.

A small breeding population of wood ducks nests in the Clearwater Region. From 1988-1998, in an attempt to enhance this species' presence, nest boxes were erected in conjunction with the Department's HIP program. A landowner survey of wood duck use of nest boxes was discontinued in 2005 due to poor return rates on data cards. Many of these structures are no longer usable. Since 2001, the U.S. Army Corps of Engineers has installed over 30 wood duck nest boxes along the lower Snake and Clearwater River levee ponds and sloughs. A resident population resides in the valley and disperses out from this source.

Trapping and Transplanting: Three ducks were banded in the Clearwater Region during this reporting period.

Management Implications: The development of ponds and shallow water areas through the HIP program has improved local duck nesting in the region, though no production surveys are conducted to monitor this. Future production surveys may be worthwhile at trapping sites if numbers increase.

Southwest (Nampa) Region

Population Surveys: No surveys for estimating duck nesting success and production were conducted on WMAs during the reporting period.

Trapping and Transplanting: Thirty-five Mallards were banded at the Fort Boise WMA and 28 mallards were banded at CJ Strike WMA in the Southwest (Nampa) Region during this reporting period (Tables 7 and 8). Regional personnel also assisted the USFWS in trapping, sampling, and banding waterfowl at Deer Flat. 70 ducks were swabbed for Avian Flu (37 Northern Pintail, 29 Mallards, 2 American Widgeon, and 2 American Green-winged Teal) at Deer Flat National Wildlife Refuge.

Disease Testing: A total of 175 samples were collected for avian influenza (AI) testing from live (30 samples) and hunter harvested (145 samples) ducks in the Southwest Region. Mallards, American Green-winged Teal, Ring-necked ducks, and Gadwalls were the most common species sampled. No samples were positive for high pathogenic H5N1.

Habitat Conditions: Precipitation in the Southwest Region was near or above average during winter in the Weiser, Bruneau and Owyhee Basins, but slightly below in the Payette and Boise Basins. Precipitation during spring and early summer was near or above average in the Weiser, Boise, Owyhee, and Bruneau Basins, but below average in the Payette Basin. Because no regional wetland surveys are conducted, the exact extent of wetlands is unknown. The waterfowl production from these wetlands is also unknown.

Management Implications: As the Department implements the statewide HIP program, it is anticipated that the number of acres of wetland will increase, contributing to the goal of increasing Idaho's resident and wintering duck populations.

Prescribed fire and herbicide are being used on WMAs to open up dense stands of vegetation. Opening these stands will make them more attractive and productive to waterfowl broods.

Southwest (McCall) Region

Population Surveys: No population surveys are conducted for ducks in the McCall sub-region. Ducks are numerous and mostly associated with the Lake Cascade ecosystem.

Various local groups, such as the Boy Scouts and Reservoir Association, erect wood duck nest boxes. No effort was made to monitor the number of boxes installed by these private organizations. Maintenance of these boxes is encouraged annually.

Trapping and Transplanting: No ducks were banded by the Southwest (McCall) Region during this reporting period.

Management Implications: The HIP program and other programs will be utilized to enhance duck nest production. Priority will be placed on projects that stabilize water levels and enhance nest production on Cascade Reservoir.

Magic Valley Region

Population Surveys: Magic Valley regional staff conducts an annual ground waterfowl survey at Hagerman Wildlife Management Area. The count for this reporting period was conducted on 7 January 2010 and involved 7 field personnel. A total of 9,582 dabbling ducks and 1,799 diving ducks were observed, for a total of 11,382 ducks.

Habitat Conditions: Precipitation during the 2009-2010 winter and spring was below average in all major watersheds in the Magic Valley Region. Snake River flows, as usual, were low during nesting season.

Trapping and Transplanting: Fifty-nine ducks were banded at the Hagerman WMA in the Magic Valley Region during this reporting period (Tables 7 and 8).

Management Implications: Although ducks are produced annually on Hagerman, Niagara, Billingsley Creek, Centennial Marsh, and Carey Lake WMAs, much of the region's duck production occurs in cultivated areas along canals and near small reservoirs and stock ponds. In general, wetland habitats are limited in the region and have been adversely affected by successive drought years. At WMAs, where duck production is a priority, breeding pair and brood surveys are currently not conducted.

Southeast Region

Population Surveys: Duck nest success and brood surveys have been conducted on the Sterling WMA periodically since the mid-1990s; however, none were completed in 2010.

Twenty-four wood duck nest boxes are located in the region. No boxes were checked during this report period.

Predator Management: Graduate student research from 1993-1995 indicated high magpie populations on the Sterling WMA in association with dense Russian olive stands. Russian olive stands were removed in the late 1990s in an attempt to reduce predation and increase waterfowl nest success. Subsequent field observations suggested that mammalian predators began to replace magpies following tree removal. Mammalian predator removal efforts were initiated in 1997 and continued through 2010. Other predator management efforts included removal of potential den sites (e.g., culverts, brush, and junk piles).

Trapping and Transplanting: No ducks were banded in the Southeast Region during this reporting period.

Waterfowl die-offs: We had one small botulism outbreak that was associated with an industrial settling pond. Approximately 20 ducks died during this short outbreak in August 2010. The company said they would take steps to reduce future chance of an outbreak at their facility.

During September, approximately 20,000 waterfowl and water birds were picked up on the American Falls Reservoir as a result of an avian botulism outbreak. Conditions, including higher than normal water levels and higher than normal September temperatures, led to the outbreak. We had cooperation from the ShoBan tribes, the USFWS and the Bingham County Sheriff's office in the clean up. It is unknown how many more waterfowl died but were not picked up; however, estimates are 3,000 – 5,000 in addition to what was retrieved and disposed of in landfills. This was a huge effort with more than 100 hundred man-days of effort in the cleanup.

Upper Snake Region

Population Surveys: No population surveys were conducted during this reporting period.

Climatic Conditions: Conditions were very favorable throughout this reporting period. The summer of 2009 was moist and the region saw exceptional vegetation growth, creating excellent habitat conditions throughout the region. The winter of 2009-2010 was mild, with less than average snow pack and crusting. The minimal winter snowpack receded quickly and moist spring conditions led to good forage conditions throughout the spring and early summer of 2010.

Habitat Conditions: Most ducks in the region are produced on Market Lake and Mud Lake WMAs and Camas National Wildlife Refuge (NWR). Duck production on all of these areas is influenced by water levels. Abnormally wet or dry years can reduce production. Numerous other areas of duck habitat, ranging from small beaver ponds and potholes to riparian communities along the Snake River occur throughout the region. Some areas are severely impacted by livestock grazing while other areas are impacted by irrigation withdrawal, invasive noxious weeds, or housing development. The region is working with private landowners, local weed control areas, the Bureau of Land Management (BLM), U.S. Forest Service, Natural Resource Conservation Service, and other non-government groups to improve the quality of nesting and brood-rearing habitat through HIP.

The best wood duck habitat in the region is on the North Fork Snake River below St. Anthony, the South Fork Snake River below Burns Creek, and the Snake River above Roberts. These areas have excellent cottonwood riparian communities and numerous slow-flowing and backwater sloughs. Except for Cartier Slough WMA, Deer Parks WMA, and the Warm Slough Access Area, the land ownership is a mix of private and BLM lands. Market Lake, Mud Lake, and Sand Creek WMAs have limited wood duck nesting habitat around the edges of marshes and ponds.

Habitat Improvements: On Market Lake WMA, 128 acres were farmed during 2010. A variety of crops were planted and left standing for waterfowl and upland game use.

On Mud Lake WMA, approximately 110 acres were planted to food plots, and 15 acres were burned to benefit waterfowl and upland game during 2010. On Chester Wetlands and Sand Creek WMAs, 79 acres of food plots were planted.

Trapping and Transplanting: No ducks were trapped for transplanting in the Upper Snake Region during this reporting period. Habitat biologists banded 652 ducks during this reporting period.

Waterfowl Die-offs: No major waterfowl die-offs occurred in Upper Snake Region during this reporting period.

Depredation: No depredation complaints were received during this reporting period. As part of an ongoing program to prevent depredation to grain fields south of Idaho Falls, Canada goose nests located on islands in Gem Lake were oiled with corn oil under a permit from USFWS using license dollars.

Predator Control: The Department did not conduct predator removal for waterfowl during 2010; however, hunters and trappers remove some predators during normal furbearer seasons.

Management Implications: Management direction in the 1991-1995 WMP is to maintain at least 30% duck nesting success on important duck-producing WMAs and increase duck production by improving nesting habitat on WMAs and through HIP. Production surveys are to be used on WMAs where duck production is a priority to monitor production and measures taken to increase production where it is low.

Nest success has not been monitored since the early 1990s. Mayfield nest success estimates at Market Lake WMA were around 20% each year that surveys were done. This is below the objective of 30% for the WMA. Nest predation appeared to be caused by both avian and mammalian predators. Mammalian predation appeared higher on nests in large *Juncus* habitat blocks while avian predation appeared higher in fragmented cattail and hardstem bulrush habitat patches.

Results from nest searches and nest success estimates on Market Lake suggest that ducks are not using some plant communities for nesting. Very few nests were found in the old *Juncus* meadows. Reseeding at least some of these communities to cover providing more structure (e.g., a rank bunchgrass) should be considered and the areas then monitored for nest attempts and success.

Duck nest surveys conducted on Mud Lake WMA generally indicated above 30% nesting success.

The region has some excellent wood duck habitat along the Snake River but has lacked nesting boxes. Adopt-A-Wetland groups and habitat biologists have placed some nesting boxes along the Snake River. Incidental observations suggest a wood duck nesting population has established along the Snake River.

Salmon Region

Population Surveys: No population surveys are conducted for ducks in the Salmon Region.

Trapping and Transplanting: No ducks were banded in the Salmon Region during this reporting period.

GEESE (ALL SPECIES)

Regional Reports

Panhandle Region

Population Surveys: Canada goose nest surveys were conducted on the Boundary Creek, McArthur Lake, Pend Oreille, and Coeur d'Alene River WMAs in 2010 (Fig 2). A total of 362 nests were located.

Historically, McArthur Lake WMA produced the greatest number of geese in the Panhandle Region, peaking at 117 nests in 1982. By 1987, this number had declined to 55 nests, attributable primarily to raven depredation. Predator control efforts were implemented and helped to stabilize production. During dam reconstruction, the reservoir was drained from September 1994 to March 1995. The number of goose nests declined to 24 and remained low thereafter. In 2010, 31 nests were observed (Tables 9 and 10).

The Coeur d'Alene River WMA supported >10 nesting pairs of geese in 1979. Following a decade-long gosling transplant program, the population increased dramatically. The population was further bolstered by the addition of ~150 goose nesting platforms. Nesting pair numbers increased to ~100 pairs during the 1990s. A decline is evident in recent years. A total of 49 nests were located in 2005 after which significant effort was directed towards nest platform maintenance. A total of 55 nests were observed in 2010 (Tables 9 and 10).

The Pend Oreille WMA consists of scattered parcels along Pend Oreille Lake and the Pend Oreille River. The number of nesting geese located on the Pend Oreille has remained high in recent years. A total of 152 goose nests were located in 2009. This increased to 261 in 2010 primarily as a result of the acquisition and addition of Pearl Island to the WMA. Pearl Island alone accounted for 151 nests in 2010.

Ten Canada goose nests were located on the Boundary Creek WMA during 2009. This increased to 15 goose nests in 2010. Production on the area is expected to increase as nesting patterns are established and more nesting structures are installed.

Trapping and Transplanting: Four Canada geese were trapped and banded in 2010 incidental to duck banding. No Canada geese were transplanted in the Panhandle Region during the reporting period.

Management Implications: Canada goose nesting initially increased in the Panhandle Region in response to the placement of man-made nest structures and a gosling transplant program. Production declined in the early 2000s, presumably in response to a lack of platform maintenance. An increased emphasis was placed on maintaining existing nest structures beginning in 2005, and the number of nesting geese initially increased. Numbers of nesting geese are currently considered to be static.

HIP has significantly increased the number of nest structures erected on private property since 1988. There are more structures on private land than there are on Department property.

From 1973 through 1996, Canada geese goslings were banded each summer at McArthur Lake WMA, as well as all goslings transplanted to the Coeur d'Alene River WMA. This program was terminated in 1997. The region's banding efforts are now concentrated on ducks.

Clearwater Region

Population Surveys: An established flock of PP Canada geese nest in the Clearwater Region. These birds nest along the lower 22 miles of the Clearwater River, primarily from Lewiston upstream to Peck (Fig. 2). The 2010 breeding pair survey of this area resulted in a count of 40 indicated pairs and a total of 124 Canada geese (Table 10). Numbers of active nests in this area were counted consistently from 1981 through 2006. Nesting success had been enhanced in this area with man-made nest structures placed on islands in the 1980s and early 1990s. Consistent data collection of goose nest structure use in the Clearwater Region began in 1988. The number of structures peaked at 80 in the early 1990s. Issues related to a burgeoning population in the late 1990s resulted in a change in management direction. The total number of structures slowly declined as those found unserviceable were removed. The last structures were removed after the 2006 nesting season. Management direction will encourage natural ground nesting on the islands. Annual summer goose counts conducted in the Lewiston/Clarkston valley indicate a stable local goose population.

Additional areas were surveyed for nests beginning in 1992. These included farm ponds in the region where nesting structures were issued to landowners, and Mann Lake, Middle Fork Clearwater River, Palouse River, Potlatch River, and Red River. These surveys have been discontinued, as they applied to nest structure use only. Poor return rates on data cards were another factor in discontinuing this survey. Most of these structures are no longer being maintained for geese.

Depredation: The number of goose complaints remained low over the reporting period. The increased hunting pressure and harvest in and around past depredation complaint areas has effectively reduced calls concerning crop damage. Four complaints of crop damage were taken involving Canada geese. The lack of complaints reported around the Mann Lake area are likely a result of the Department's reduction in the size of the waterfowl hunting closure in 2001.

Trapping and Transplanting: No Canada geese were trapped or transplanted in the Clearwater Region during the reporting period.

Management Studies: Problems associated with large numbers of geese at local parks, golf courses, and the Lewiston airport have subsided somewhat due to favorable habitat conditions and dispersal of birds. No trapping operations were conducted this year.

To address concerns about Canada geese in the urban environment of the Lewiston-Clarkston valley, interested parties continue to work together to apply management options available to control local goose numbers. Deterrent measures such as hazing and vegetation manipulation have been conducted by private businesses, state, and federal agencies in the area.

In 2004, the U.S. Army Corps of Engineers (USACE) applied for a limited permit from the USFWS to take waterfowl using egg addling in specified areas on the Washington levee system and associated parks, and on one island shared by both Washington and Idaho. These sites were determined to have heavy nesting concentrations within city limits. Much of the local goose problem is tied to these areas. The USACE now annually treats between 30 to 60 nests in the

specified areas. Nest searches in April 2010 resulted in approximately 30 nests being treated (approximately 195 eggs). The program is reportedly reducing the level of complaints and human health issues related to the local goose population significantly.

Management Implications: Beginning in 2007, the region changed the method of monitoring Canada geese on the lower Clearwater River (Survey Area 5) from structure and ground nest search to a pair and total goose count. Survey Area 6 was dropped as it tracked only the use of nest structures issued to landowners throughout the region. These structures are no longer being maintained for goose nesting. The adjusted management objectives for Survey Area 5 is a minimum of 40 breeding pairs and minimum of 100 total geese (Table 9).

Southwest (Nampa) Region

Population Surveys: The breeding pair survey for geese was flown in April 2010. The survey area includes the Snake River from Guffy Bridge to Farewell Bend, and the Payette River from the mouth to Emmett. The three-year average (667) is below the minimum goal of 900 breeding pairs for the sixth consecutive year. A total of 1,711 Canada geese and 628 breeding pairs were observed (Tables 9 and 10) in addition to large flocks of white-fronted geese (10,500 birds), snow geese (9,500), and sandhill cranes (1,700). Additionally, the lower Boise River was surveyed from Eagle to the confluence with the Snake River. Eighty-seven pairs and 215 total geese were counted.

In early spring 2010, USFWS Deer Flat National Wildlife Refuge staff surveyed historic refuge islands on the Snake River for nesting Canada Geese and estimated the total goose production based on those counts. A total of 376 goslings were detected on 32 islands (330 in ground nests, 46 on nesting platforms). This production represents a 28% decrease from 2009 counts, and a 45% decrease from the ten year average. The 2010 total estimated Canada Goose production on historic refuge islands was 1,118 goslings (1,040 in ground nests, 78 on nest platforms).

An urban Canada goose survey was conducted in Boise in May 2010 to document prevalence and distribution of urban goose numbers in the Boise area. It was hoped urban goose counts would correlate with the annual spring pair counts on the Snake and Payette Rivers, which have declined in recent years. Geese were counted in all parks and golf courses in three segments in the greater Boise area. A total of 1,137 geese were counted in 2010. Numbers appear to be increasing in recent years (586 in 2007, 596 in 2008, 875 in 2009, and 1,137 in 2010). This urban population will be closely monitored and evaluated with other regional goose surveys.

Climatic Conditions: Precipitation in the Southwest Region was near or above average during winter in the Weiser, Bruneau and Owyhee Basins, but slightly below in the Payette and Boise Basins. Precipitation during spring and early summer was near or above average in the Weiser, Boise, Owyhee, and Bruneau Basins, but below average in the Payette Basin.

Trapping and Transplanting: During summer 2010, no local geese (goslings or adults) were moved out of the urban area of Boise, but two geese were banded at CJ Strike WMA incidental to duck banding.

Disease Testing: A total of 24 samples were collected for avian influenza (AI) testing from hunter harvested geese during the spring light goose season. No samples were positive for high pathogenic H5N1.

Management Implications: Each year, two to three aerial goose surveys are conducted along each route and the highest count is used for the survey. The current three-year average of Canada goose breeding pairs along the Payette and Snake Rivers (667) is below the minimum pair objective (900) identified in the 1991-1995 WMP (Connelly and Wackenhut 1990; Fig. 2) for the sixth consecutive year. The 2010 USFWS Canada Goose surveys on the Deer Flat National Wildlife Refuge also detected a marked decline in production (decrease of 45% from 10 year average). The Southwest Region will continue to closely monitor populations, seasons, harvest, and limits to determine if the situation warrants action.

Southwest (McCall) Region

Population Surveys: Dangerous water levels due to fluctuating water management precluded conducting population surveys in a timely manner on the Snake River reservoirs (Brownlee, Oxbow, and Hells Canyon) during the reporting period. A population survey was conducted on Lake Cascade. A total of 426 geese was observed and 138 indicated pairs noted. Population data on this body of water have not been collected in recent years and a 3-year average of monitoring criteria could not be established.

Nesting survey and nest structure use data were not collected during the reporting period. Distribution of existing goose nest structures is coordinated region-wide through HIP.

Trapping and Transplanting: No Canada geese were trapped or transplanted in the Southwest (McCall) Region during the reporting period.

Management Implications: The 1991-1995 WMP directs the Department to reduce the harvest when the three-year average falls below minimum objectives. The minimum objective for Lake Cascade is 225 geese observed and 100 indicated pairs. The annual count exceeds this objective. These monitoring criteria were developed for the plan without baseline data. Management objectives for these areas should be refined, using available data. These refined objectives should be incorporated into any updates to the 1991-1995 WMP. Population survey data collection will be continued according to guidelines in the 1991-1995 WMP.

Magic Valley Region

Population Surveys: In 2010, only one (Area 14, Highway 93 to Minidoka) of the four survey areas in the Magic Valley Region (Fig. 2) met either the minimum breeding pair or total geese objectives as outlined in the 1991-1995 WMP (Tables 9 and 10).

Use of man-made nest structures by Canada geese is monitored during the annual breeding pair survey. During the April 2010 survey, geese were observed to be using 51% (46/90) of the structures observed on the Camas Prairie, and 27% (35/132) of the structures observed on the Snake River.

Habitat Conditions: Precipitation during the 2009-2010 winter and spring was below average in all major watersheds in the Magic Valley Region. Snake River flows, as usual, were low during nesting season.

Depredation: No goose depredation complaints were received in the region during this reporting period.

Trapping and Transplanting: No Canada geese were trapped or transplanted in the Magic Valley Region in 2010.

Management Implications: In recent years, none of the survey areas in the region have met both minimum breeding pair and total geese criteria. Increased bag limits (from 2/day to 4/day), poor nesting conditions, and reduced availability of artificial nesting structures are all factors that may have contributed to decline in observed spring goose numbers. Many of the nesting structures in the region were constructed in the late 1970s and are no longer functional or are located in areas that are no longer suitable. Current budget constraints and personnel shortages will negatively affect maintenance and monitoring of goose nest structures in the region except on WMAs.

Southeast Region

Population Surveys: Aerial spring pair surveys of Rocky Mountain Population (RMP) Canada geese showed a 3% increase from 2009 to 2010 in the number of indicated pairs counted (Table 9). Numbers of both pairs and total geese were similar to 2008 and remained higher than the 2005-2007 averages. Current three-year averages for breeding pair counts and total geese are generally below management objectives (Tables 9 and 10). Several segments of this survey have not been completed for several years.

Trapping and Transplanting: No Canada geese were trapped or transplanted in the Southeast Region in 2010.

Management Implications: Goose populations, as measured by breeding pair counts and total counts, are generally below the 1991-1995 WMP objectives (Connelly and Wackenhut 1990; Table 9). No formal depredation complaints were filed with the Department during this reporting period; however, Wildlife Services personnel normally deal with waterfowl depredations.

Waterfowl die-offs: We had reported one small group (<15) of dead snow geese after the spring white goose season in middle to late march 2010, after examination and lab tests it was diagnosed that avian cholera was the cause of mortality. Avian cholera outbreaks are not uncommon in snow geese during their spring migrations.

Upper Snake Region

Population Surveys: Two surveys (counts of indicated pairs and total geese) are conducted annually on RMP Canada geese to estimate breeding population trends (Tables 9 and 10).

Indicated pairs are below management plan objectives for Market Lake WMA, Mud Lake WMA, Camas NWR, the Teton Basin, Island Park Reservoir area, and the North Fork Snake River. Low indicated pairs may be the result of drought conditions over the past several years. Residential development is impacting goose production in the Teton Basin.

At Chester Wetlands, 11 goose boxes were maintained for nesting and 20 artificial nest structures were maintained on Sand Creek WMA. On Mud Lake WMA, 101 goose platforms were maintained and 8 new ones installed. Four wood duck boxes were maintained at Mud Lake WMA as well.

Climatic Conditions: Conditions were very favorable throughout this reporting period. The winter of 2009-2010 was mild, with less than average snow pack and crusting. The minimal winter snowpack receded quickly and moist spring conditions led to good forage conditions throughout the spring and early summer of 2010.

Habitat Conditions: Most goose nesting on Department WMAs occurs on nesting structures. Nesting on the South Fork Snake River occurs on islands, while nesting at Camas NWR, in the Teton Basin, the North Fork Snake River, and Island Park Reservoir occurs primarily on the ground.

Habitat on the South Fork Snake River and lower Henrys Fork Snake River is being impacted by the invasion of noxious weeds. The Department is a cooperating partner with local weed control districts to address this problem.

Habitat in the Teton Basin is being lost to summer home development. The Department's HIP program has the potential to reduce this loss if landowner cooperation can be obtained.

Goose production along the South Fork is dependent upon water releases from Palisades Reservoir. The U.S. Bureau of Reclamation and the Department jointly researched river flows for optimal goose production during the early to mid-1970s. This study indicated that flows between 8,000 and 16,000 cfs during nesting season were optimal for goose production. However, releases are scheduled to meet irrigation water rights and fisheries needs, which reduces goose production due to nest flooding most years.

Depredation: Canada goose nests located on islands in Gem Lake were oiled with corn oil under a permit from USFWS using license dollars. This effort has helped reduce goose depredations on grain fields near Gem Lake south of Idaho Falls.

Trapping and Transplanting: No trapping or transplanting occurred during this reporting period.

Waterfowl Die-offs: No major die offs were reported in the region during this reporting period.

Habitat Improvements: On Market Lake WMA, 15 goose platforms were maintained for use in 2010. At Chester Wetlands, 30 goose boxes were maintained for nesting, and 25 artificial nest

structures were maintained on Sand Creek WMA. On Mud Lake WMA, 107 goose platforms were maintained.

Management Implications: Goose pair counts were conducted on seven production areas in 2010 (Figure 2). Of the seven areas monitored for indicated breeding pairs, all areas were below 1991-1995 WMP objectives (Table 9). Those that were below objective include Market Lake WMA, Mud Lake WMA, Camas NWR, Teton Basin, Island Park Reservoir area, and the North Fork Snake River above Ashton.

Canada goose production can be increased in the region by erecting additional nest structures on the South Fork Snake River, Island Park Reservoir, and Teton River. Annual maintenance of structures on the South Fork was discontinued a few years ago and most have fallen into disrepair. Habitat biologists are also no longer servicing platforms on Island Park Reservoir because of conflicts with reservoir recreationalists. Annual maintenance of structures on other non-WMA areas of the region is not being done as needed for goose nesting.

Geese produced around Gem Lake cause annual depredations on malt barley. Goose platforms were erected around Gem Lake as mitigation for the Idaho Falls hydropower project; however, no brood habitat was included in the mitigation plan. These geese are basically urban geese and difficult to harvest and control numbers. This year, the Department obtained permission from the USFWS to oil nests in Bonneville County. This appeared to decrease the level of depredation to an acceptable level. This work was accomplished utilizing license dollars under the Department's depredation prevention program.

Salmon Region

Population Surveys: The Salmon River (U.S. Highway 93 bridge at Challis to North Fork; Fig. 2) was surveyed from the ground for indicated breeding pairs and total geese April 15, 2010 to estimate breeding population trends of RMP Canada geese in 2010. A total of 11 active nests, 262 indicated pairs, and 758 total geese were counted (Tables 9 and 10).

Trapping and Transplanting: No Canada geese were trapped or transplanted in the Salmon Region during this reporting period.

SANDHILL CRANE

The Department's goals and objectives for the sandhill crane are the same as those for the Pacific Flyway (Subcommittee on Rocky Mountain Greater Sandhill Cranes 1997).

Current Goals

1. Maintain current sandhill crane breeding populations and their distribution.
2. Maintain current sandhill crane migrations through Idaho.
3. Meet the demand for non-consumptive uses.

The RMP sandhill crane population continued to receive increased management emphasis during the reporting period in the Magic Valley, Southeast, and Upper Snake regions because of continuing landowner concerns over crop damage. Surveys of RMP greater sandhill cranes in these three regions were initiated in 1995 to document total sandhill crane numbers, arrival dates, distribution, and age ratios.

Background and Management Philosophy: RMP greater sandhill cranes have caused crop damage in eastern Idaho for decades. In 1996, the Commission adopted rules that changed the classification of sandhill cranes from migratory nongame birds to migratory game birds and directed the Department to obtain Pacific Flyway Council and USFWS approval for an experimental controlled hunt in three areas. See the 2007 Waterfowl Annual Reports (Study II, Jobs 2 & 3) for a thorough history of the sandhill crane management areas in Idaho.

In 2009, the Commission authorized sandhill crane seasons that were no longer administered through controlled hunts. Tags were available on a first-come first-served basis. This decision was made because the harvest allocation for Idaho had increased in recent years, but the number of birds harvested had remained relatively steady. The limit remained two cranes per day per hunter with a season limit of nine cranes. The description, season framework, and bag and possession limits can be found in Appendix A.

Regional Reports

Southwest (McCall) Region

Breeding pairs of sandhill cranes occur in the Lake Cascade, North Fork Payette River, and Little Salmon River drainages. No management data are collected on these birds.

Magic Valley Region

Population Surveys: Ground surveys were conducted on 14 September 2010 in the Silver Creek Valley, Camas Prairie, and around Carey Lake. One hundred three cranes were observed on the Camas Prairie, while 381 cranes were observed in the Silver Creek area, for a total of 484 cranes observed (Table 11).

Southeast Region

Population Surveys: Greater sandhill cranes nest in several areas in the Southeast Region. Large concentrations of cranes are present in several areas in the eastern part of the region prior to migration in the fall.

Department personnel in 1995-1997 began collecting data at Chesterfield, Blackfoot Reservoir, and Grays Lake to provide information on sandhill crane abundance, juvenile recruitment rates in fall pre-migration flocks, arrival dates of sub-adults and family groups into pre-migration areas, and whooping crane use periods. These same data were collected for the Bear River Valley between Soda Springs and Montpelier beginning in 1996 (Table 11). Beginning in 1996,

USFWS personnel collected the sandhill crane information at Grays Lake NWR for the Department. Personnel for the USFWS and a private contractor normally collected aerial and ground survey information to determine total sandhill crane abundance during September in selected areas of the Southeast Region.

Harvest Characteristics: Harvest allocation and permit numbers remained the same at 400 from 2009 to 2010. An estimated 170 people hunted cranes, harvested 150 birds, 126 (84%) of which were adults (Tables 12 and 13). Hunters have not been required to comply with a mandatory check requirement since 1998.

Management Implications: Concerns expressed by grain producers during the mid-1990s prompted the Department to collect baseline information that could be used to identify strategies to reduce depredation. Chesterfield Reservoir, Blackfoot Reservoir, Bear River Valley, and Grays Lake were identified as primary sites due to a history of depredation concerns. However, sandhill cranes stage and use grain fields throughout the region including Marsh Valley, Malad Valley, Swan Lake/Oxford Slough area, Bear Lake Valley, American Falls Reservoir, and Thomas Fork Valley. Future ground surveys may need to be conducted in some or all of these areas.

Upper Snake Region

Population Surveys: Personnel for the USFWS and a private contractor collect aerial survey information to determine total sandhill crane abundance during September in selected areas of the Upper Snake Region (Table 11).

Harvest Characteristics: A mail-in survey with a follow-up telephone survey of non-respondents was used to estimate hunter participation and harvest of sandhill crane for each hunt (Table 12). Sportsmen harvested 9, 47, 14, and 33 sandhill cranes from Bonneville, Fremont, Jefferson, and Teton counties respectively

Climatic Conditions: Winter 2009-2010 received below-average levels of precipitation according to historical averages.

Depredation: The region received no sandhill depredation complaints during 2010.

Management Implications: Fall pre-migration staging area sandhill crane composition surveys were conducted in the Upper Snake Region for the first time in 1995. These baseline data were used to help identify strategies to reduce depredation concerns on pre-migration staging areas in the Fremont County area and the Teton County area.

Salmon Region

Sandhill cranes occur as scattered breeding pairs in the Lemhi, Pahsimeroi, and Salmon River valleys from Salmon to Stanley. No management data are collected on these birds.

TRUMPETER SWAN

The trumpeter swan is included in the 1991-1995 Nongame Species Plan; the Department's goals and objectives are the same as those of the Pacific Flyway. The 1991-1995 WMP contains no goals for this species. Data for trumpeter swans are included in this report for the historical record.

Regional Reports

Magic Valley Region

In 1994, 1995, and 1996, a pair of trumpeter swans successfully nested at White Arrow Ponds north of Bliss in Gooding County. Since then, trumpeter swans have made no attempt to nest at that site or attempts were brief and unsuccessful.

Successful nesting by trumpeter swans was also documented in 1995 and 1996 at the Department's Highway 46 Pond in Camas County. In 2002, a pair of trumpeter swans successfully nested and reared three juveniles on a private pond approximately six miles southeast of the Department's Highway 46 Pond.

During August 2006, Department staff found a pair of adult trumpeter swans with three cygnets on Spring Creek Reservoir in Camas County. No nesting trumpeters were documented in the region during 2007; however, a pair of adults was observed at Thorn Creek Reservoir by Department personnel on 23 August 2007. No nesting trumpeters were documented in the region during 2008-2010.

Southeast Region

Aerial and ground surveys were conducted in the Southeast Region to monitor trumpeter swans and white goose movements pre, during and post the 2010 spring white goose season in a portion of GMU 68 west of Highway 39. This was to monitor for changes in trumpeter swan use of feeding fields and the general area in reference to the 19 day season for white geese. The surveys showed no effect from hunting activity on swan distribution. We were not able to survey the fort hall bottoms or other ShoBan lands for trumpeter swan use.

Upper Snake Region

Aerial and ground surveys were conducted in the Upper Snake Region to monitor nesting trumpeter swans and wetlands. During 2010, there were 12 occupied nesting territories and 10 nesting pairs. Seventeen cygnets fledged.

TUNDRA SWAN

The Department's 1991-1995 WMP goals for the tundra swan are the same as those of the Pacific Flyway (Connelly and Wackenhut 1990). However, during the reporting period, this species received little management emphasis in Idaho. This is because the tundra swan is not

classified by the state as a game bird and the species benefits indirectly from other wildlife management programs.

Tundra swans migrate through the region in spring and fall, and some winter on the Snake River, the North Fork Snake River and the Teton River, but none are known to nest in the state. Counts are made incidental to other waterfowl during the mid-winter waterfowl count (Table 1) and the mid-winter tri-state trumpeter swan survey.

AMERICAN COOT

The Department's 1991-1995 WMP goals for the American coot are to 1) maintain the Idaho population, 2) increase the harvest, and 3) provide maximum recreational opportunity (Connelly and Wackenhut 1990). However, during the reporting period, this species received little management emphasis. This is because the American coot is not a popular game bird in Idaho and because it benefits indirectly from other wildlife management programs.

WILSON'S SNIPE

The Department's 1991-1995 WMP goals for the Wilson's snipe are to 1) maintain Idaho's Wilson's snipe population and 2) maintain the harvest (Connelly and Wackenhut 1990). However, during the reporting period, this species received little management attention. This is because the Wilson's snipe is not a popular game bird in Idaho and because it benefits indirectly from other wildlife management programs.

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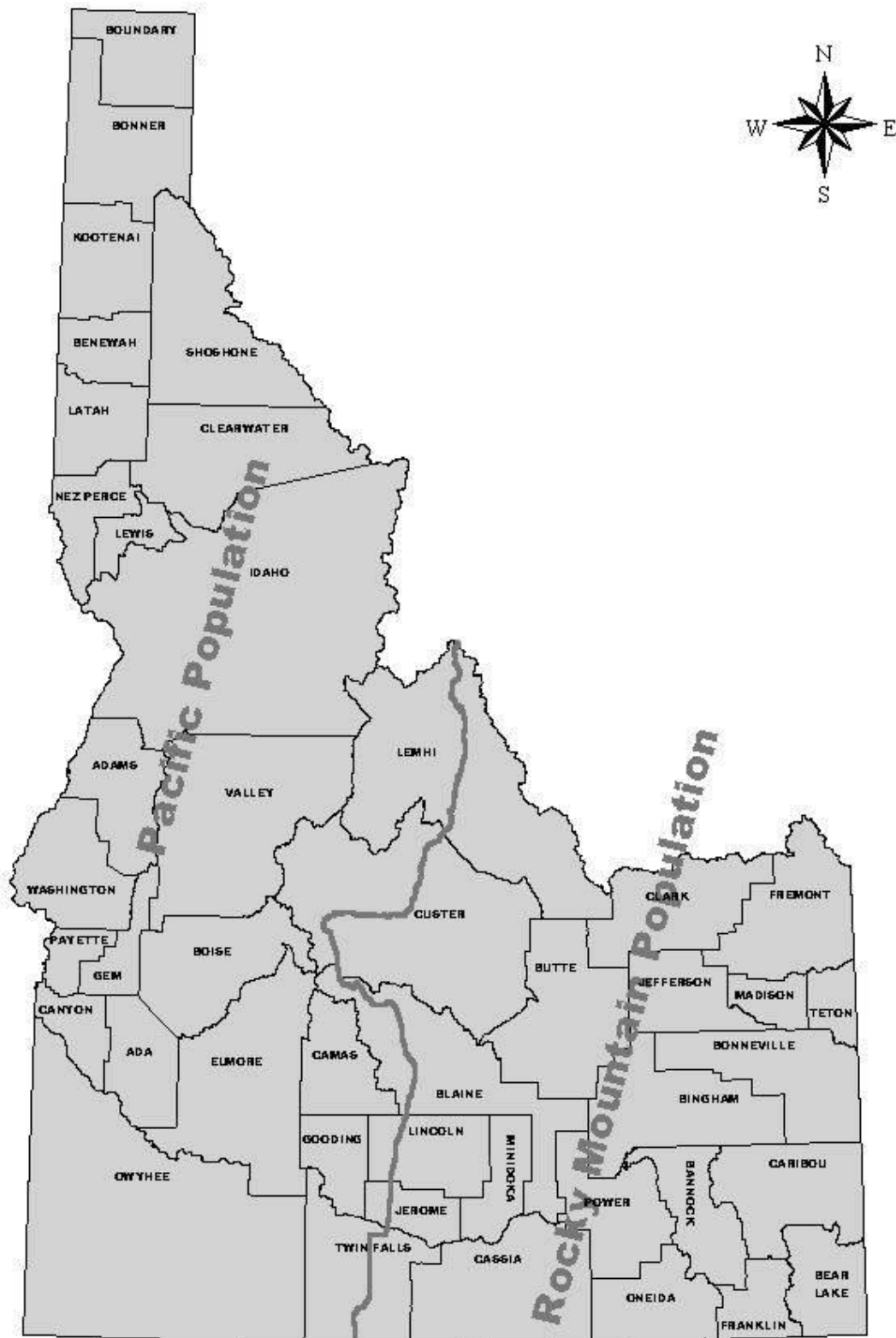


Figure 1. Distribution of Pacific and Rocky Mountain Canada geese populations within Idaho.

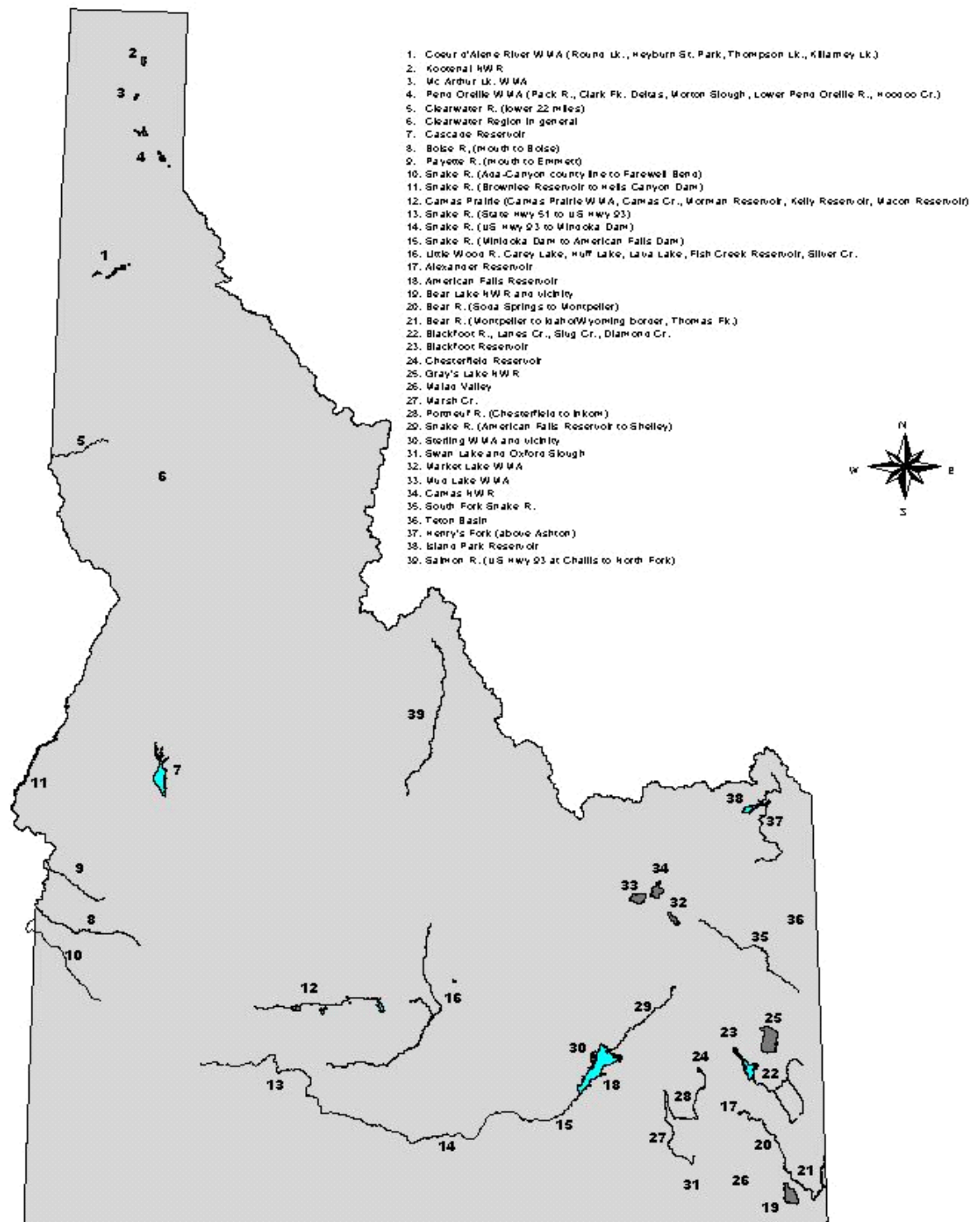


Figure 2. Idaho Canada goose nesting survey areas.

Table 1. Birds counted during the mid-winter waterfowl survey, 2000-2010. No count in 2004.

Species	2000	2001 ^a	2002	2003 ^b	2005 ^c	2006 ^d	2007	2008	2009	2000-2009 10-yr. avg.	2010	% Change from	
												Previous year	10-yr. avg.
Mallard	261,425	106,516	168,844	108,034	164,425	103,467	207,741	142,700	196,801	162,217	153,018	-22	-6
Gadwall	1,058	45	261	602	599	894	552	296	37	483	849	2,195	76
Widgeon	4,164	1,189	1,412	6,900	9,665	5,067	3,416	4,139	2,184	4,237	6,428	194	52
Green-winged Teal	202	142	249	363	402	301	134	108	27	214	57	111	-73
Blue-winged/ Cinnamon Teal	0	0	12	0	0	50	0	0	0	7	55	5500	698
Shoveler	88	1	17	25	183	7	44	49	140	62	107	-24	74
Pintail	405	1,696	179	49	121	252	124	300	404	392	88	-78	-78
Wood duck	290	38	503	55	213	336	580	411	372	311	165	-56	-47
Redhead	17,643	12,750	35,993	21,324	22,463	15,909	13,111	21,266	14,610	19,452	3,324	-77	-83
Canvasback	165	0	333	20	57	312	1,029	441	12	263	63	425	-76
Scaup	3,398	7,436	12,313	9,900	5,556	4,114	10,185	6,262	4,395	7,062	6,130	39	-13
Ringneck	1,232	282	4,445	3,411	1,060	4,281	3,816	420	1,114	2,229	1,372	23	-38
Goldeneye	19,674	11,921	15,219	12,018	18,214	21,473	22,035	30,837	27,641	19,892	33,492	21	68
Bufflehead	654	752	1,193	763	1,080	1,045	949	1,012	627	897	665	6	-26
Ruddy duck	13	0	7	12	6	2	7	2	13	7	6	-54	-13
Merganser	3,952	1,732	2,792	1,571	1,103	1,196	413	855	582	1,577	470	-19	-70
Unidentified ducks	752	324	835	225	260	14,922	17,831	12,353	11,066	6,508	13,368	21	105
Total ducks	317,115	144,824	246,609	165,272	225,407	173,628	281,967	221,451	260,025	226,255	219,657	-16	-3
Snow goose	0	0	1	0	1	0	3	0	0	1	5	500	800
Ross ^e	0	0	0	0	2	0	0	0	0	0	0	0	0
Canada goose	37,961	39,474	29,374	43,489	53,506	39,078	44,912	44,570	37,292	41,073	45,855	23	12
Lesser Canada	0	0	0	0	0	0	0	0	0	0	0	0	0
Cackling goose	0	0	0	0	0	0	0	0	0	0	0	0	0
White-front	1	0	0	0	0	0	0	0	0	0	0	0	0
Total geese	37,962	39,474	29,375	43,489	53,509	39,078	44,915	44,570	37,292	41,074	45,860	23	12
Tundra swan	220	174	205	178	384	243	615	352	4	264	25	525	-91
Trumpeter swan	139	0	1,783	1,730	0	2,016	2,922	2,614	2,856	1562	2,083	-27	33
Unidentified swan ^e	1,940	201	5	150	454	333	0	178	453	413	149	-67	-64
Coot	38,253	25,763	33,285	16,042	5,325	21,473	24,639	37,807	12,686	23,919	2,049	-84	-91
Total waterfowl	395,629	210,436	311,262	226,861	285,079	236,771	355,058	306,972	300,630	292,078	268,172	-11	-8

^a About 1/3 of the state's winter habitat was not counted in 2001 because of a fatal aircraft crash and subsequent flying moratorium.

^b About 15% of the state's winter habitat was not counted in 2003 because of inclement weather in Magic Valley Region.

^c About 28% of the state's winter habitat was not counted in 2005 because of inclement weather in Upper Snake Region.

^d About 10% of the state's winter habitat was not counted in 2006 because of inclement weather in Panhandle Region.

^e Primarily trumpeter swans 1995-2000.

Table 2. Estimated statewide harvest of ducks obtained from the Department telephone survey, 1988-2009.

Year ^a	% license buyers sampled	Harvest	Average birds per hunter per year	Hunters	Days Hunted	Days hunted per hunter per year
1988	4.6	154,400 ± 21,700	9.1	17,000 ± 1,100	111,100 ± 9,300	6.5
1989	3.0	147,000 ± 24,300	8.9	16,500 ± 1,400	116,700 ± 11,500	7.1
1990	3.0	157,800 ± 22,600	9.6	16,400 ± 1,300	120,800 ± 9,800	7.4
1991	4.0	181,500 ± 25,400	10.5	17,300 ± 1,200	156,000 ± 13,000	9.0
1992	2.5	210,700 ± 36,300	11.7	18,000 ± 1,700	145,100 ± 14,300	8.1
1993 ^{b,c}	2.5 ^d	252,100 ^b	13.4	18,800 ^b	217,400 ^b	11.6
1994 ^{b,c}	5.3	300,300 ± 23,400	15.6	19,400 ± 4,000	243,900 ± 16,200	12.6
1995 ^c	3.9 ^d	416,300 ± 33,300	17.9±1.4 ^e	23,300 ± 4,000	309,400 ± 33,500	13.3 ± .7 ^e
2002	4.4 ^f	233,500	12.3	19,000	170,000	9.0
2003	4.0 ^g	320,200	14.4	22,200	200,700	9.0
2004	4.9 ^h	264,900	12.5	21,100	178,500	8.4
2005	5.3 ⁱ	322,100	16.2	19,900	184,000	9.2
2006	5.0 ^j	317,800	15.2	20,900	171,700	8.2
2007	4.4 ^k	406,300	19.6	20,800	203,800	9.8
2008	5.0 ^l	377,800	18.1	20,900	196,400	9.4
2009	5.0 ^m	350,700	17.4	20,200	181,300	9.0

^a No harvest estimates for 1996-2001 because the survey was not conducted.

^b Confidence intervals not available.

^c Survey was conducted by a private contractor using some procedures which differed from those used by the Department in preceding years. Consequently, estimates are not comparable to those for preceding years.

^d Approximate.

^e 95% confidence interval.

^f 839 duck hunters were contacted or about 4.4% of the estimated 19,000 duck hunters.

^g 887 duck hunters were contacted or about 4.0% of the estimated 22,200 duck hunters.

^h 1,042 duck hunters were contacted or about 4.9% of the estimated 21,100 duck hunters.

ⁱ 1,050 duck hunters were contacted or about 5.3% of the estimated 19,900 duck hunters.

^j 1,050 duck hunters were contacted or about 5.0% of the estimated 20,900 duck hunters.

^k 918 duck hunters were contacted or about 4.4% of the estimated 20,800 duck hunters.

^l 1,040 duck hunters were contacted or about 5.0% of the estimated 20,900 duck hunters.

^m 1,018 duck hunters were contacted or about 5.0% of the estimated 20,200 duck hunters.

Table 3. Estimated waterfowl harvest numbers from USFWS's waterfowl hunter survey for Idaho, 1988-2009.

Year	Duck stamps sold	Estimated adult hunters	Total geese harvested ^a	Total ducks harvested ^a
1988	16,597	14,271	26,600	112,900
1989	16,894	14,073	30,500	119,600
1990	17,036	13,443	36,800	96,700
1991	17,151	14,144	39,500	117,880
1992	17,717	14,132	31,700	126,700
1993	21,761	17,972	45,600	153,200
1994	21,229	17,418	61,100	141,300
1995	21,097	18,395	46,900	203,400
1996	22,382	19,751	61,100	245,800
1997	23,697	22,241	40,700	248,600
1998	23,515	21,006	56,700	254,700
1999	26,709	20,795	28,500	228,300
2000	28,206	23,306	86,200	173,200
2001	26,173	12,000/14,900 ^b	64,400	138,600
2002	24,937	14,500 / 9,900 ^b	36,700	160,600
2003	24,878	18,200/15,400 ^b	84,200	262,900
2004	24,320	17,100/13,300 ^b	62,700	188,500
2005	23,724	18,500/16,000 ^b	74,300	258,300
2006	25,726	18,400/14,500 ^b	77,800	278,000
2007	27,137 ^c	17,500/11,178	40,900	229,100
2008		20,000/13,700	64,500	257,600
2009		15,400/11,100	58,300	286,600

^a Adjusted for exaggeration memory bias and juvenile hunter density.

^b The first number is estimated number of duck hunters and the second number is estimated number of goose hunters.

^c Data is no longer available.

Table 4. Estimated harvest of Canada geese from the Pacific Population (west of U.S. Hwy 93) obtained from the Department telephone survey, 1988-2009.

Year	% of license buyers sampled	Harvest	Hunters	Days hunted
1988	4.6	19,700 ± 5,300	5,800 ± 700	45,800 ± 5,500
1989	3.0	20,900 ± 5,900	6,600 ± 900	50,100 ± 8,500
1990	3.0	27,300 ± 8,300	5,300 ± 800	43,900 ± 6,800
1991	4.0	42,700 ± 19,300	5,300 ± 700	52,700 ± 7,300
1992	2.5	40,900 ± 14,200	8,100 ± 1,200	67,500 ± 10,500
1993 ^a	2.5	43,000 ^{b,c}	10,400 ^c	88,700 ^c
1994 ^a	5.5	73,000 ^c	^c	^c
1995 ^a	3.9 ^c	64,700 ± 8,500	15,300 ± 3,500	140,000 ± ^c
1996 ^d				
1997 ^d				
1998 ^d				
1999 ^d				
2000 ^d				
2001 ^d				
2002	4.4 ^e	24,500 ^{c,f}	8,500 ^c	75,700 ^c
2003	3.3 ^g	59,600	9,800	85,100
2004	4.9 ^h	37,900	8,800	66,000
2005	5.3 ⁱ	39,700	8,800	72,900
2006	5.0 ^j	48,555	9,600	71,000
2007	4.4 ^k	49,940	7,900	65,800
2008	5.4 ^l	61,100	8,200	71,000
2009	6.0 ^m	49,900	7,200	59,000

^a Survey was conducted by a private contractor using some procedures which differed from those used by the Department in preceding years. Consequently, estimates are not comparable to those for preceding years.

^b Rough estimate.

^c Data or confidence intervals not available. Other years show 95% confidence interval.

^d No harvest estimate; survey not conducted.

^e 553 goose hunters were contacted or about 4.4% of the 12,500 estimated goose hunters.

^f The proportion of PP geese in the Magic Valley was estimated to be 67%.

^g 515 goose hunters were contacted or about 3.3 % of the estimated 15,400 goose hunters.

Beginning in 2003, hunters were specifically asked whether they were hunting in the Pacific or Rocky Mountain population zones.

^h 705 hunters were contacted or about 4.9% of the estimated 14,300 goose hunters.

ⁱ 742 hunters were contacted or about 5.3% of the estimated 14,100 goose hunters.

^j 727 hunters were contacted or about 5.0% of the estimated 14,500 goose hunters.

^k 601 hunters were contacted or about 4.4% of the estimated 13,500 goose hunters.

^l 698 hunters were contacted or about 5.4% of the estimated 13,000 goose hunters.

^m 713 hunters were contacted or about 6.0% of the estimated 11,900 goose hunters.

Table 5. Estimated harvest of Canada geese from the Rocky Mountain Population (east of U.S. Hwy 93) obtained from the Department telephone survey, 1988-2009.

Year	% of license buyers sampled	Harvest	Hunters	Days hunted
1988	4.6	18,600 ± 6,900	4,300 ± 600	32,300 ± 5,800
1989	3.0	25,600 ± 9,300	5,000 ± 800	45,600 ± 14,100
1990	3.0	31,400 ± 12,700	6,300 ± 800	54,100 ± 14,100
1991	4.0	28,500 ± 8,000	7,700 ± 800	64,400 ± 6,900
1992	2.5	20,100 ± 8,300	4,300 ± 900	31,700 ± 6,900
1993 ^a	2.5	31,100 ^{b,c}	6,400 ^c	56,700 ^c
1994 ^a	5.5	29,400 ^{b,c}	^c	^c
1995 ^a	3.9 ^b	33,400 ± 6,600	5,700 ± 2,100	61,600 ^c
1996 ^d				
1997 ^d				
1998 ^d				
1999 ^d				
2000 ^d				
2001 ^d				
2002	4.4 ^e	17,400 ^{c,f}	4,400 ^c	35,600 ^c
2003	3.3 ^g	31,500	5,800	42,300
2004	4.9 ^h	29,200	5,500	42,200
2005	5.3 ⁱ	42,900	5,900	49,800
2006	5.0 ^j	26,900	5,400	38,700
2007	4.4 ^k	36,000	5,700	43,900
2008	5.4 ^l	31,100	4,900	40,000
2009	6.0 ^m	29,500	5,000	39,100

^a Survey was conducted by a private contractor using some procedures which differed from those used by the Department in preceding years. Consequently, estimates are not comparable to those for preceding years.

^b Rough estimate.

^c Data or confidence interval not available. Other years show 95% confidence interval.

^d No harvest estimate; survey not conducted.

^e 553 goose hunters were contacted or about 4.4% of the 12,500 estimated goose hunters.

^f The proportion of RMP geese in the Magic Valley was estimated to be 33%.

^g 515 goose hunters were contacted or about 3.3 % of the estimated 15,400 goose hunters. In 2003 hunters were specifically asked whether they were hunting in the Pacific or Rocky Mountain population zones.

^h 705 hunters were contacted or about 4.9% of the estimated 14,300 goose hunters.

ⁱ 742 hunters were contacted or about 5.3% of the estimated 14,100 goose hunters.

^j 727 hunters were contacted or about 5.0% of the estimated 14,500 goose hunters.

^k 601 hunters were contacted or about 4.4% of the estimated 13,500 goose hunters.

^l 698 hunters were contacted or about 4.5% of the estimated 13,000 goose hunters.

^m 713 hunters were contacted or about 6.0% of the estimated 11,900 goose hunters.

Table 6. Estimated statewide harvest of Canada geese obtained from the Department telephone survey, 1988-2009.

Year	% license buyers sampled	Harvest	Average birds per hunter per year	Hunters	Days hunted	Days hunted per hunter per year
1988	4.6	38,300 ± 7,000	3.8	10,200 ± 900	78,200 ± 8,100	7.7
1989	3.0	46,500 ± 10,400	4.0	11,600 ± 1,200	95,700 ± 14,000	8.3
1990	3.0	58,700 ± 15,100	5.1	11,600 ± 1,100	98,000 ± 9,700	8.4
1991	4.0	71,200 ± 19,800	5.5	13,000 ± 1,100	117,100 ± 10,100	9.0
1992	2.5	61,000 ± 17,000	4.9	12,400 ± 1,500	99,200 ± 12,100	8.0
1993 ^a	2.5 ^b	74,100 ± 11,500	4.4	16,800 ± 400	145,400 ± 12,600	8.7
1994 ^a	5.3	102,500 ± 11,500	5.6	17,800 ± 4,000	178,000 ± 13,400	10.1
1995 ^a	3.9 ^b	98,000 ± 10,800	4.7 ± .5 ^c	21,000 ± 4,100	201,600 ± 13,200	9.6 ± .6 ^c
1996 ^d						
1997 ^d						
1998 ^d						
1999 ^d						
2000 ^d						
2001 ^d						
2002	4.4 ^e	41,800	3.3	12,500	110,200	8.8
2003	3.3 ^f	93,500	6.0	15,400	132,300	8.4
2004	4.9 ^g	67,100	4.7	14,300	108,300	7.6
2005	5.3 ^h	82,600	5.9	14,100	122,600	8.7
2006	5.0 ⁱ	75,500	5.2	14,500	109,700	7.6
2007	4.4 ^j	86,000	6.4	13,510	109,900	8.1
2008	5.4 ^k	92,300	7.1	13,000	111,000	8.5
2009	6.0	79,400	6.7	11,900	98,100	8.2

^a Survey was conducted by a private contractor using some procedures which differed from those used by the Department in preceding years. Consequently, estimates are not comparable to those for preceding years.

^b Approximate.

^c 95% confidence interval.

^d No harvest estimate; survey not conducted.

^e 553 hunters were contacted or about 4.4% of the 12,500 estimated goose hunters.

^f 515 hunters were contacted or about 3.3 % of the estimated 15,400 goose hunters.

^g 705 hunters were contacted or about 4.9% of the estimated 14,300 goose hunters.

^h 742 hunters were contacted or about 5.3% of the estimated 14,100 goose hunters.

ⁱ 727 hunters were contacted or about 5.0% of the estimated 14,500 goose hunters.

^j 601 hunters were contacted or about 4.4% of the estimated 13,500 goose hunters.

^k 698 hunters were contacted or about 4.5% of the estimated 13,000 goose hunters.

^l 713 hunters were contacted or about 6.0% of the estimated 11,900 goose hunters.

Table 7. Ducks banded in Idaho by Department and USFWS personnel, 2010.

Species	Panhandle	Clearwater	Southwest	Magic Valley	Southeast	Upper Snake	Salmon	Total
Mallard	1,086	3	63	58	0	633	0	1,840
Wood Duck	296	0	0	1	0	0	0	296
Ring-necked	4	0	0	0	0	0	0	4
Redhead	8	0	0	0	0		0	8
Northern Pintail	19	0	0	0	0	8	0	27
American Widgeon	0	0	0	0	0		0	0
Teal	14	0	0	0	0	8	0	22
Gadwall	0	0	0	0	0	1	0	1
Ruddy Duck	0	0	0	0	0	1	0	1
Total	1,427	3	63	59	0	651	0	2,199

Table 8. Mallards banded in Idaho by Department and USFWS personnel, 1991-2010.

IDFG Region	1991-2004	2005	2006	2007	2008	2009	2010	Total
Panhandle	10,531	1,823	1,081	1,392	1,315	993	1,086	18,221
Clearwater	98	0	0	0	0	12	3	113
Southwest	2,348	0	0	0	0	40	63	2,451
Magic Valley	1,226	0	0	0	0	0	59	1,285
Southeast	31	0	0	0	0	0	0	31
Upper Snake	1,257	0	77	147	309	977	633	3,400
Total	15,491	1,823	1,158	1,539	1,624	2,022	3,854	25,501

Table 9. Idaho goose population survey areas (RMP in gray), 2010 counts, three-year averages, and management objectives.

Region/Survey Area ^b	2010 Counts		Average 2008-2010		Objectives ^a (min.)	
	Nests	Pairs	Nests	Pairs	Nests	Pairs
Panhandle						
1 Coeur d'Alene River WMA	55		64		35	
2 Boundary Creek WMA	15		12			
3 McArthur WMA	31		38		70	
4 Pend Oreille WMA	261		173		85	
Clearwater						
5 Clearwater River		40		48		40
6 Remainder of Region (discontinued)						
Southwest						
7 Cascade Reservoir		138		ND		100
8 Boise River		87		97		100
9 Payette River		124		120		200
10 Snake River South		504		547		700
11 Snake River North		ND		ND		50
Magic Valley						
12 Camas Prairie		145		ND		285
13 Snake River (Hwy 51 to Hwy 93)		109		ND		175
14 Snake River (Hwy 93 to Minidoka)		12		ND		60
15 Snake River (Minidoka to American Falls)		39		ND		120
16 Little Wood River		ND		ND		
Southeast						
17 Alexander Reservoir		ND		ND		
18 American Falls Reservoir		2		10		
19 Bear Lake NWR		ND		ND		640
20 Bear River(Soda Springs-Montpelier)		ND		ND		
21 Bear River(Montpelier-ID/WY border)		ND		ND		
22 Blackfoot Reservoir-(upper)		ND		ND		150
23 Blackfoot Reservoir		ND		3		
24 Chesterfield Reservoir		3		4		
25 Grays Lake NWR		ND		ND		350
26 Malad Valley		8		15		
27 Marsh Creek		25		48		190
28 Portneuf River(Chesterfield-Inkom)		34		50		
29 Snake River(American Falls-Shelley)		6		29		
30 Sterling WMA		6		11		
31 Swan Lake and Oxford Slough		26		35		100
Upper Snake						
32 Market Lake WMA		12		20		85
33 Mud Lake WMA		26		36		95
34 Camas NWR		9		17		130
35 South Fork Snake River		5		21		
36 Teton Basin		11		29		90
37 North Fork Snake River		13		7		15
38 Island Park Reservoir		54		30		60
Salmon						
39 Salmon River	11	262		240		175

^a Connelly and Wackenhut (1990).

^b See Figure 2.

^c Changed survey from nests to pairs in 2007, because nesting platforms were removed.

Table 10. Active nests, indicated pairs, and total number of Canada geese (RMP in gray) in Idaho for the past five years.

Survey Area ^a	<u>2006</u>			<u>2007</u>			<u>2008</u>			<u>2009</u>			<u>2010</u>		
	N	P	T	N	P	T	N	P	T	N	P	T	N	P	T
Region 1															
1	91		91	91		91	60		60	76		76	57		57
2				8		8	10		10	10		10	15		15
3	46		46	29		29	35		35	47		47	31		31
4	39		39	123		123	107		107	152		152	261		261
Region 2															
5	29				43	125		53	117		52	108		40	124
6 (Disc.)															
Region 3															
7		35	58		119	351					44	85		138	426
8					56	244		86	204		117	290		87	215
9		117	274		154	443		125	293		112	246		124	550
10		741	1,484		551	1,366		584	1,150		552	1,338		504	1,161
11															
Region 4															
12		174	307											145	358
13		111	240								22	170		109	239
14		30	73								54	184		12	23
15											7	26		39	79
16															
Region 5															
17					8	22									
18					30	259		13	30		14	64		2	6
19					190	386									
20					61	166									
21															
22															
23					38	184									
24					4	35		5	16		2	16		11	25
25					21	41									
26					4	16		26	60		10	52		23	54
27					14	53		70	189		48	194		46	117
28					7	150		60	171		55	191		57	171
29					22	139		36	108		45	140		31	108
30					9	146		7	18		19	54		27	18
31					19	114		52	254		27	120		32	254
Region 6															
32		67	206		57	104		34	68		13	45		12	41
33		57	109		75	126		66	138		16	69		26	83
34		22	45		38	39		30	69		12	34		9	52
35		8	26		35	68		51	105		6	14		5	10
36		27	93		33	60		70	162		7	18		11	57
37		7	60		3	4		3	48		12	81		13	39
38		67	427		33	475		18	541		38	534		54	721
Region 7															
39		333	925		263	803		7	201	800		5	257	788	758

^a See Figure 2. N = # of active nests; P = # of indicated pairs.

Table 11. September aerial and ground-based counts of RMP greater sandhill cranes in eastern Idaho, 2006-2010.

Region/Area	2006	2007	2008	2009	2010
Magic Valley					
Camas Prairie	^a	2	^b	103	5
Carey Lake	^a	0	0	0	0
Silver Creek	^a	316	397	381	309
Southeast					
American Falls Reservoir	^a	89	124	91	68
Bear River Valley	^a	1,690	321	780	1,211
Blackfoot Reservoir	^a	284	752	361	429
Chesterfield Reservoir	^a	27	111	109	103
Grays Lake	^a	1,943	41	1,483	1,115
Malad River				277	ND
Marsh Valley	^a	127	304	167	117
Oxford Slough	^a	373	152	231	366
Upper Snake					
Ashton-St. Anthony		807	798	830	444
Camas NWR	313	632	475	806	664
Henry's Lake Flats	^a	8	3	28	112
Island Park Reservoir	^a	0	8	34	5
Kilgore	^a	0	0	0	ND
Market Lake WMA	0	0	0	0	3
Mud Lake WMA	291	364	94	ND	137
Teton Basin	^a	1,477	1,591	1,253	688
Total	604	8,457	5,472	6,934	5,776

^a Aerial counts not conducted in 2006 due to aircraft mechanical problems.

^b Pre-count reports from the Camas Prairie indicated that there were no cranes; therefore, the survey was not completed

Table 12. Sandhill crane permit levels, estimated hunter participation, and harvest based on mail and telephone surveys, 2005-2010.

Hunt Area	2005	2006	2007	2008	2009	2010
Bear Lake-Caribou County						
Permits available	300	300	300	300	400	400
Tags issued	243	224	261	221	332	335
Total hunters	114	119	223	112	170	152
Days hunted	313	293	336	230	449	523
% Success ^a	45	59	48	44	50	45
Harvest	109	132	117	90	150	150
Bonneville County						
Permits available			20 ^b	40 ^b	40	40
Tags issued			17	6	22	22
Total hunters			8	4	15	15
Days hunted			17	8	38	23
% Success ^a			25	25	28	41
Harvest			2	1	6	9
Fremont County						
Permits available	70	100	80	100	100	100
Tags issued	66	82	78	71	100	98
Total hunters	57	66	63	62	71	58
Days hunted	101	121	103	98	192	167
% Success ^a	70	52	60	55	56	48
Harvest	46	43	40	34	50	47
Jefferson County						
Tags available			20	40	40	40
Tags issued			13	26	31	26
Total hunters			8	20	17	15
Days hunted			18	20	49	46
% Success ^a			75	61	49	54
Harvest			8	13	12	14
Teton County						
Permits available	70	100	80	100	100	100
Tags issued	60	92	83	73	100	50
Total hunters	45	57	67	53	53	37
Days hunted	90	101	84	109	124	114
% Success ^a	55	66	58	65	50	66
Harvest	33	61	45	47	35	33
State Total						
Permits available	440	500	500	580	680	680
Tags issued	369	398	452	397	585	531
Total hunters	216	241	293	238	326	278
Days hunted	504	515	558	465	852	875
% Success ^a	51	59	52	51	50	48
Harvest	188	235	211	185	254	253

^a Success rate shown is harvest per permit issued.

^b Data shown is for Hunt # 9506, 1-7 September. No hunters from Hunt # 9507, 8-15 September, responded to the survey.

Table 13. Age composition of sandhill crane harvest based on mail and telephone surveys, 2005-2009.

Hunt Area	2005	2006	2007	2008	2009	2010
Bear Lake-Caribou County						
Juvenile	24	26	18	13	24	19
Adult	85	105	99	77	126	131
Unknown						
Bonneville County						
Juvenile			0 ^b	1 ^b	3	1
Adult			2	0	3	8
Unknown						
Fremont County						
Juvenile	9	5	2	6	10	9
Adult	37	38	43	27	40	38
Unknown	0 ^a	0 ^a				
Jefferson County						
Juvenile			0	0	3	2
Adult			8	13	9	12
Unknown						
Teton County						
Juvenile	2	19	7	7	4	6
Adult	31	42	33	40	31	27
Unknown	0 ^a	0 ^a				

^a Birds not classified as adult were assumed to be juvenile.

^b Data shown is for Hunt # 9506, 1-7 September. No hunters from Hunt # 9507, 8-15 September, responded to the survey.

APPENDIX A

IDAHO

2009-2010 SEASON

WATERFOWL RULES

2009 Waterfowl Seasons and Rules



*Northern shoveler at the Boundary/Smith Creek Wildlife Management Area.
Photo courtesy of Steve Jansa.*



RULES

September 2009
through
March 2010



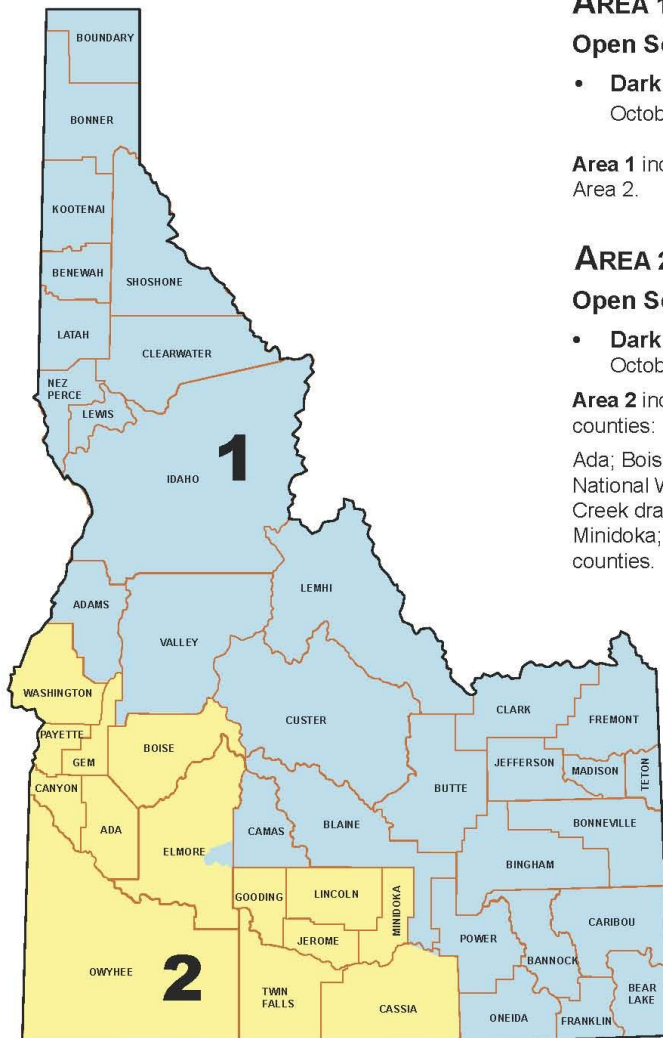
Dark Goose Seasons & Hunt Area Descriptions

(Including: Canada and White-fronted Geese)

Daily Bag Limit:

Dark goose: 4

Dark Goose Possession Limit: 8



AREA 1

Open Season:

- **Dark Goose**
October 3, 2009 - January 15, 2010.

Area 1 includes all parts of the state **not** included in Area 2.

AREA 2

Open Season:

- **Dark Goose**
October 10, 2009 - January 22, 2010.

Area 2 includes the following counties or portions of counties:

Ada; Boise; Canyon; Cassia - **except** the Minidoka National Wildlife Refuge; Elmore - **except** the Camas Creek drainage; Gem; Gooding; Jerome; Lincoln; Minidoka; Owyhee; Payette; Twin Falls; and Washington counties.

Light Goose Seasons & Hunt Area Descriptions

(Including: Blue, Ross' and Snow Geese)

Daily Bag Limit:

Light goose: 10

Light Goose Possession Limit: 20

AREA 1

Open Season:

- **Light Goose**
October 3, 2009 – January 15, 2010.

Closures: Fremont and Teton counties.

AREA 2

Open Season:

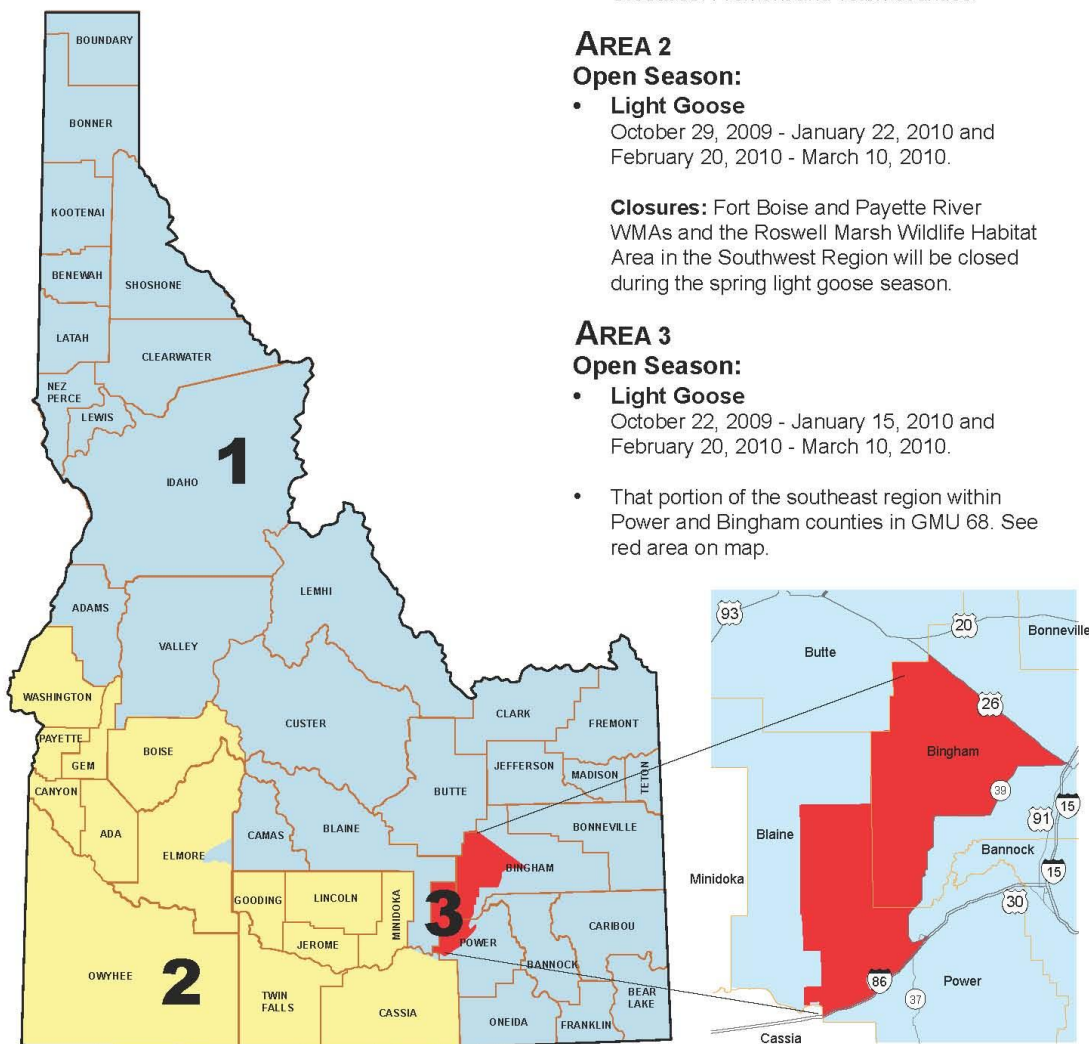
- **Light Goose**
October 29, 2009 - January 22, 2010 and
February 20, 2010 - March 10, 2010.

Closures: Fort Boise and Payette River WMAs and the Roswell Marsh Wildlife Habitat Area in the Southwest Region will be closed during the spring light goose season.

AREA 3

Open Season:

- **Light Goose**
October 22, 2009 - January 15, 2010 and
February 20, 2010 - March 10, 2010.
- That portion of the southeast region within Power and Bingham counties in GMU 68. See red area on map.



<http://fishandgame.idaho.gov>

Statewide Duck (Including Merganser), Common Snipe and American Coot Seasons & Hunt Area Descriptions

AREA 1

Area 1 includes all parts of the state **not** included in Area 2.

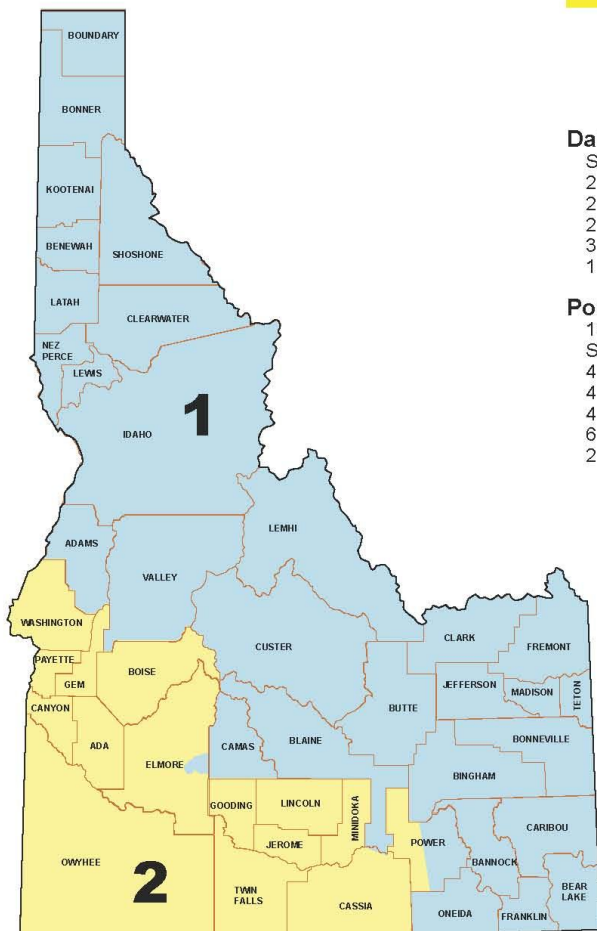
Open Season:
October 3, 2009 — January 15, 2010
Scaup Season:
October 24, 2009 — January 15, 2010

AREA 2

Area 2 includes the following counties or portions of counties:

Ada; Boise; Canyon; Cassia - **except** the Minidoka National Wildlife Refuge; Elmore - **except** the Camas Creek drainage; Gem; Gooding; Jerome; Lincoln; Minidoka; Owyhee; Payette; Power west of State Highway 37 and State Highway 39 **except** the Minidoka National Wildlife Refuge; Twin Falls; and Washington counties.

Open Season:
October 10, 2009 — January 22, 2010
Scaup Season:
October 31, 2009 — January 22, 2010



Duck Bag Limit (Including mergansers)

Daily Bag Limit: 7 of any kind except:
Shall not include more than the following:
2 female mallards
2 redheads
2 pintails
3 scaup (lesser or greater in the aggregate)
1 canvasback

Possession Limit After First Day of Season:
14 of any kind except:
Shall not include more than the following:
4 female mallards
4 redheads
4 pintails
6 scaup (lesser or greater in the aggregate)
2 canvasbacks

Bag Limits for Areas 1 and 2 For Common Snipe and Coots

Common Snipe
Daily Bag Limit: 8
Possession Limit After First Day of Season: 16

Coots
Daily Bag Limit: 25
Possession Limit After First Day of Season: 25

Equipment Restrictions

- Shot Sizes: Sandhill cranes may legally be taken with shot size T (0.2 inches in diameter) or smaller (lead or nontoxic).
- No person may take migratory game birds with any shotgun capable of holding more than three shells unless it is plugged with a one-piece filler which is incapable of removal without disassembling the gun.

Shooting Hours:

Shooting hours are from one-half hour before sunrise to sunset. For exact time, check the current upland game brochure on page 29.



Photo courtesy Steve Jamsa



**Ask First —
For Permission to Hunt
on Private Property**

The Idaho Department of Fish and Game adheres to all applicable state and federal laws and regulations related to discrimination on the basis of race, color, national origin, age, sex, or handicap. If you feel you have been discriminated against in any program, activity, or facility of Fish and Game, or if you desire further information, please write to: Idaho Department of Fish and Game, P.O. Box 25, Boise, ID 83707; OR The Office of Human Resources, U.S. Fish and Wildlife Service, Department of the Interior, Washington, DC 20240.

Information in this brochure summarizes the rules and is the official proclamation of the Idaho Fish and Game Commission for the hunting of sandhill cranes in calendar year 2009. Further explanation is available in the current upland game seasons brochure. The official rules are available from the Division of Statewide Administrative Rules, Department of Administration, Statehouse Mail, Boise, ID 83720.

Costs associated with this publication are available from IDFG in accordance with section 60-202, Idaho Code. rc6 6-09 2500-41918

IDAHO 2009

SANDHILL CRANE Season Information



Crane hunters must have a \$1.75 Federal Migratory Game Bird Harvest Information Program (HIP) validation on their licenses. This validation is available at any license vendor.

Requirements: No person shall hunt sandhill cranes without having in possession the appropriate hunting license, sandhill crane tag and federal HIP validation.

FEES - includes vendor fee

Sandhill Crane Tag \$15.00

Federal HIP Validation \$1.75

Note: The HIP validation is required with the first tag only.

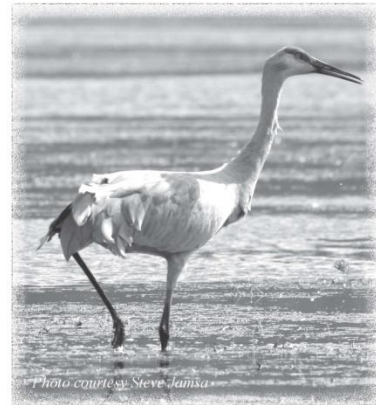


Photo courtesy Steve Jamsa

What's New?

- Sandhill crane hunting is no longer a controlled hunt season!
- Please see boundary changes (**bold**) in Areas 2 and 3.
- Tags will be available for purchase on August 1 on a first-come, first-served basis.
- Seasons have been extended in Area 1.
- Seasons have been combined into one two-week period for Areas 2 through 5.
- Tag price has been discounted **Now \$15!**

Sandhill Crane Seasons, Limits and Tags

Hunt Area	Season	Tags
1	September 1-30	400
2	September 1-15	100
3	September 1-15	100
4	September 1-15	40
5	September 1-15	40

Note: Daily limit is 2 for all hunts. The season limit is 9.

One of the purposes of these hunts is to help reduce crop damage by sandhill cranes. Check with local landowners or Department offices for information on crane use areas and remember: always **"Ask First to Hunt on Private Property."**

Tags will be available for purchase August 1 on a first-come, first-served basis.

Tags are available at any Fish and Game license vendor, by telephone (1-800-554-8685), or the Fish and Game website:
<http://fishandgame.idaho.gov>.

Sandhill Crane Hunt Areas include the following:

Area 1 — Includes all of Bear Lake County and all of Caribou County except that portion downstream from the dam at Alexander Reservoir south of U.S. Highway 30, and that portion lying within the Grays Lake Basin.

Area 2 — Includes all of Teton County **except that portion lying west of Highway 33 and south of Packsaddle Road (West 400 North) and north of the North Cedron Road (West 600 South) and east of the west bank of the Teton River.**

Area 3 — Includes all of Fremont County **except the Chester Wetlands Wildlife Management Area.**

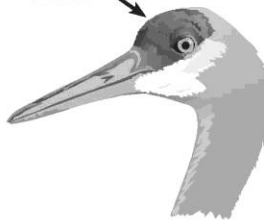
Area 4 — Includes all of Bonneville County.

Area 5 — Includes all of Jefferson County.

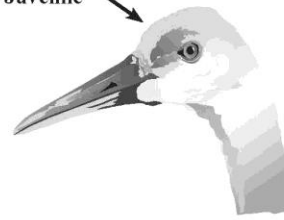
*An adult sandhill crane stands nearly four feet tall.
Grayish plumage is accented by a red head patch.
Juveniles have tannish brown heads with no red.*

Which one did you get?

Adult



Juvenile



Appendix Table A-1. Idaho waterfowl management, season structure, and limits, 1990-present.

Year	Duck			Dark Goose		
	Management Areas	Season Length (days)	Daily Limit ^a	Management Areas	Season Length (days)	Daily Limit ^a
1990-1991	2	59	4	5	93	3
1991-1992	3	59	4	5	93	3
1992-1993	3	59	4	5	93	3
1993-1994	3	59	4	5	93	4 (3)
1994-1995	3	59	4	5	93	4 (3)
1995-1996	3	93	6	5	100	4 (3)
1996-1997	3	107	7	5	100	4 (3)
1997-1998	2	107	7	5	100	4 (3)
1998-1999	2	107	7	3	100	4 (3)
1999-2000	2	107	7	3	100	4 (3)
2000-2001	2	107	7	3	100	4 (3)
2001-2002	2	107	7	3	100	4 (3)
2002-2003	2	107	7	4	100	4 (3)
2003-2004	2	107	7	3	107	4 (3)
2004-2005	3	107	7 (5)	3	107	4 (3)
2005-2006	2	107	7	2	107	4
2006-2007	2	107	7	2	107	4
2007-2008	2	107	7	2	107	4
2008-2009	2	107	7	2	107	4
2009-2010	2	107	7	2	107	4

^a Numbers in parenthesis indicate management areas had different daily limits.

Submitted by:

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Approved by: IDAHO DEPARTMENT OF FISH AND GAME



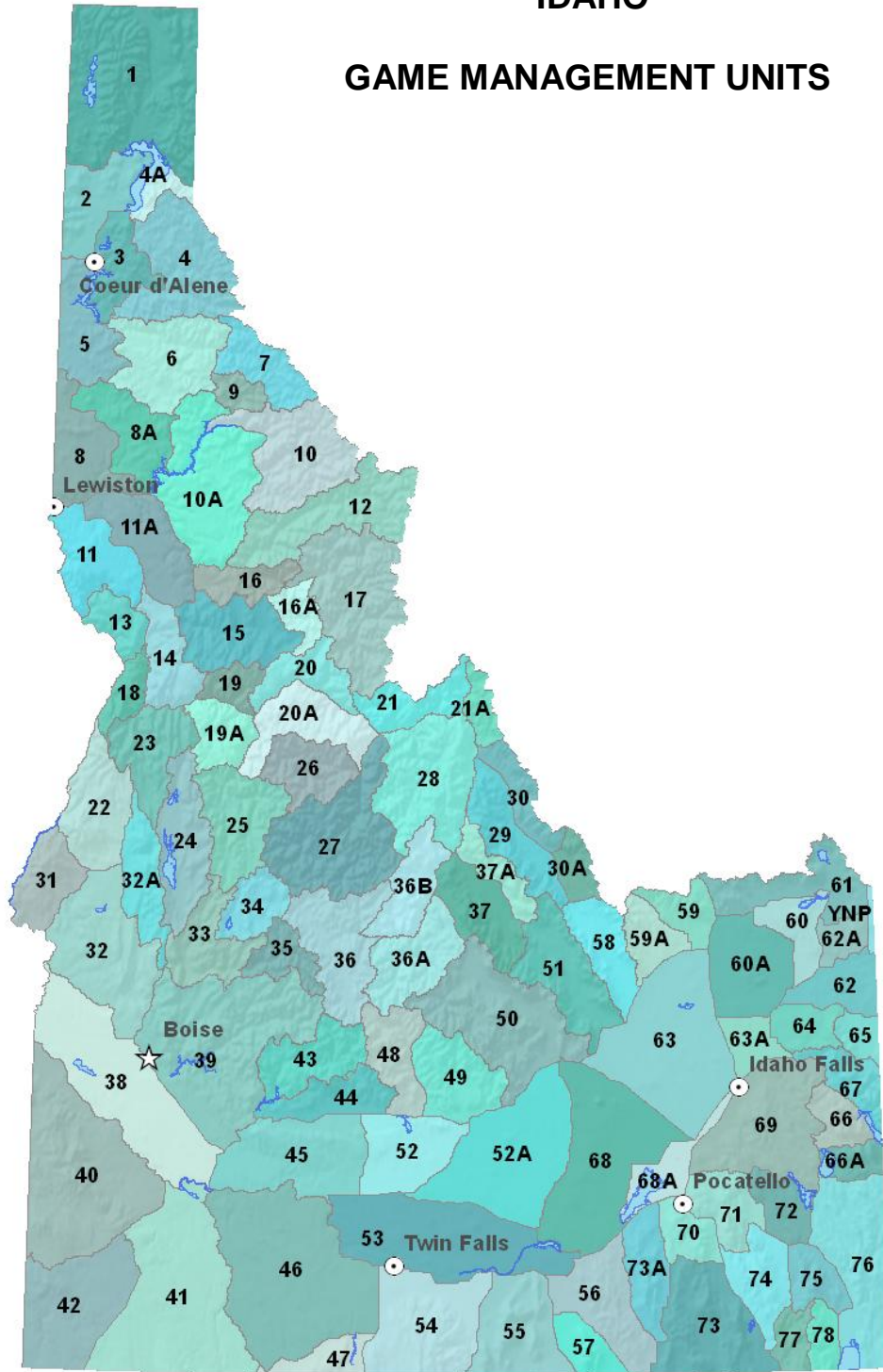
Brad Compton, Asst. Chief
Bureau of Wildlife



Jeff Gould, Chief
Bureau of Wildlife

IDAHO

GAME MANAGEMENT UNITS



FEDERAL AID IN WILDLIFE RESTORATION

The Federal Aid in Wildlife Restoration Program consists of funds from a 10% to 11% manufacturer's excise tax collected from the sale of handguns, sporting rifles, shotguns, ammunition, and archery equipment. The Federal Aid program then allots the funds back to states through a formula based on each state's geographic area and the number of paid hunting license holders in the state. The Idaho Department of Fish and Game uses the funds to help restore, conserve, manage, and enhance wild birds and mammals for the public benefit. These funds are also used to educate hunters to develop the skills, knowledge, and attitudes necessary to be responsible, ethical hunters. Seventy-five percent of the funds for this project are from Federal Aid. The other 25% comes from license-generated funds.

